

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE CORPORATION,

Plaintiff,

v.

CIVIL ACTION No. 05-11656-RCL

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY,

Defendant.

**AFFIDAVIT OF ALICIA B. MCDEVITT IN OPPOSITION TO PLAINTIFF'S MOTION
FOR PARTIAL SUMMARY JUDGMENT**

I, Alicia B. McDevitt, depose and state as follows:

1. I am admitted to the bars of the Supreme Judicial Court of Massachusetts, the United States District Court for the District Court of Massachusetts and the United States Court of Appeals for the First Circuit. I am an associate in the law firm of Foley Hoag LLP and am counsel for Massachusetts Bay Transportation Authority (“MBTA”).

2. In my role as counsel for the MBTA in the above-captioned lawsuit, I am familiar with the documents attached hereto.

3. Attached as Exhibit 1 is a true and accurate copy of excerpts of the deposition transcript transcribed at the March 29, 2006 deposition of Richard H. House (“House Dep.”).

4. Attached as Exhibit 2 is a true and accurate copy of excerpts of the deposition transcript transcribed at the March 28, 2006 deposition of Peter G. Wilson (“Wilson Dep.”).

5. Attached as Exhibit 3 is a true and accurate copy of the Affidavit of Adeline Delbene, Keeper of the Records for DEP dated March 8, 2006 (the “Delbene Affidavit”).

6. Attached as Exhibit 4 is a true and accurate copy of the Expert Report of Wesley E. Stimpson (“Stimpson Expert Report”).

7. Attached as Exhibit 5 is a true and accurate copy of Defendant MBTA’s Supplemental Objections and Responses to Plaintiff’s First Set of Interrogatories dated March 27, 2006.

8. Attached as Exhibit 6 is a true and accurate copy of the Affidavit of Jane A. Chmielinski dated May 23, 2006 (the “Chmielinski Affidavit”).

9. Attached as Exhibit 7 is a true and accurate copy of the Affidavit of Michael A. Diggin dated May 24, 2006 (the “Diggin Affidavit”).

10. Attached as Exhibit 8 is a true and accurate copy of excerpts of the deposition transcript transcribed at the April 19, 2006 deposition of James R. Henneman (“Hennemann Dep.”).

11. Attached as Exhibit 9 is a true and accurate copy of excerpts of the deposition transcript transcribed at the April 18, 2006 deposition of Roger D. Bergeron (“Bergeron Dep.”).

12. Attached as Exhibit 10 is a true and accurate copy of the Phase II Comprehensive Site Assessment prepared by GZA GeoEnvironmental, Inc. dated August 1991 (without attachments).

13. Attached as Exhibit 11 is a true and accurate copy of a report entitled, “A Brief Background of Boston Engine Terminal Oil Pollution Problems” prepared by Lawrence B. Boyd (Boyd Associates) dated October 22, 1986.

14. Attached as Exhibit 12 is a true and accurate copy of a letter from R. Bradley and R. Chalpin (DEQE) to H. Knott (Amtrak) dated April 10, 1989 regarding Notice of Responsibility/Request for Technical Information Pursuant to M.G.L. Chapter 21E and 310

CMR 40.00 ("Notice of Responsibility").

15. Attached as Exhibit 13 is a true and accurate copy of the Answer and Counter-claims of the Defendant MBTA.

16. Attached as Exhibit 14 is a true and accurate copy of the Electronic Clerk's Notes for Proceedings Held Before Judge Reginald C. Lindsay: Scheduling Conference held on 11/16/2005, entered by the Court in the above-captioned matter.

17. Attached as Exhibit 15 is a true and accurate copy of the Joint Statement of the Parties Pursuant to Local Rule 16.1(D).

18. Attached as Exhibit 16 is a true and accurate copy of the Plaintiff's Complaint for Enforcement of Bankruptcy Consummation Order, Injunctive Relief and Contempt initiating the present lawsuit dated August 10, 2005.

19. Attached as Exhibit 17 is a true and accurate copy of the Plaintiff's Answer and Defenses to Defendant's Counterclaims.

I declare under penalty of perjury that the foregoing is true and correct.

/s/ Alicia B. McDevitt
Alicia B. McDevitt

Dated: June 23, 2006

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Exhibit One

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

- - - - - - - - - - - - - - - x
BOSTON AND MAINE CORPORATION, :
Plaintiff, :
: vs. : Civil Action
MASSACHUSETTS BAY : No. 05-11656 RCL
TRANSPORTATION AUTHORITY, :
Defendant. :
: - - - - - - - - - - - - - - - x

DEPOSITION OF RICHARD H. HOUSE, a witness
called on behalf of the Plaintiff, taken pursuant to
the Federal Rules of Civil Procedure, before Linda
A. Walsh, Registered Professional Reporter and
Notary Public in and for the Commonwealth of
Massachusetts, at the Offices of Foley Hoag LLP, 155
Seaport Boulevard, Boston, Massachusetts, on
Wednesday, March 29, 2006, commencing at 10:51 a.m..

PRESENT:

Winston & Strawn LLP
(By Susan A. MacIntyre, Esq.,
and Eric L. Hirschhorn, Esq.)
1700 K Street, N.W., Washington, D.C.
20006-3817, for the Plaintiff.

Foley Hoag LLP
(By Alicia Barton McDevitt, Esq.)
Seaport World Trade Center West, 155
Seaport Boulevard, Boston, MA 02210-2600,
for the Defendant.

* * * * *

1 Mr. Wilson when he was --

2 A. Oh, yes.

3 Q. -- at the BET?

4 A. My memory is coming back.

5 Q. Do you recall attending any meetings at the
6 Boston Engine Terminal?

7 MS. McDEVITT: Objection. You can answer.

8 A. Well, any meeting at all? Well, sure, we
9 had meetings at the office occasionally.

10 Q. And what were the meetings about?

11 A. Maintenance of the equipment.

12 Q. Anything else?

13 A. That was about it.

14 Q. And was this during the 1979 to 1983
15 period?

16 A. Yes, yes.

17 MS. McDEVITT: Excuse me. Could we take a
18 break off the record for just a second?

19 MS. MacINTYRE: Sure.

20 (Discussion off the record)

21 BY MS. MacINTYRE:

22 Q. The meetings at the BET, do you recall any
23 discussions at the meetings regarding environmental
24 conditions?

1 A. No.

2 Q. Do you recall any discussions at the
3 meetings regarding regulators, like the Coast Guard
4 or the Department of Environmental Quality
5 Engineering, DEQE?

6 A. No.

7 Q. Do you recall any meetings at the BET that
8 were attended by T personnel other than you during
9 the 1979 to 1983 period?

10 A. No. I would say no.

11 Q. Do you recall an annual inspection of the
12 BET by MBTA officials?

13 A. No.

14 Q. Do you recall any other site visits to the
15 BET by MBTA officials in 1979 through '83?

16 MS. McDEVITT: Objection.

17 Q. You can answer.

18 MS. McDEVITT: You can answer.

19 A. Ask that again, if you would.

20 Q. Okay. Do you recall any other -- aside
21 from the annual of which we discussed, any other
22 site visits to the BET by MBTA personnel from 1979
23 to 1983?

24 MS. McDEVITT: Same objection.

1 A. No.

2 Q. Do you know of any other environmental
3 assessments or investigations that were conducted at
4 the BET from 1979 to 1983?

5 MS. McDEVITT: Objection.

6 A. No.

7 Q. Were there individuals at MBTA who dealt
8 with permitting issues at the BET?

9 A. I don't know.

10 Q. Were there individuals at the T who had
11 contact with regulators regarding the BET?

12 A. I don't know.

13 Q. Do you recall the Coast Guard coming to the
14 office at the BET in July 1979?

15 A. I can't say as I do, no.

16 Q. Do you recall anyone from the Coast Guard
17 ever coming to the office of the BET?

18 A. No.

19 Q. Do you recall ever seeing anyone from the
20 Coast Guard on-site at the BET?

21 A. No.

22 Q. Did you ever hear about the Coast Guard
23 coming to BET?

24 A. No, I don't believe so. No.

1 Q. Did you witness any other state or federal
2 regulators coming to the BET?

3 A. Environmental regulators?

4 Q. Environmental.

5 A. No.

6 Q. Did you hear about any other environmental
7 regulators coming to the BET?

8 A. I don't believe so.

9 Q. Did you hear about any communications from
10 state or federal regulators regarding the BET?

11 A. This is all '79 to '83 now, right?

12 Q. Right.

13 A. No.

14 Q. Do you recall any fuel oil tanks at the
15 BET?

16 A. Yes.

17 Q. Do you recall a 1,000,000 gallon fuel oil
18 tank?

19 A. Yes.

20 Q. Can you mark on the map where that was
21 located?

22 A. That was near the Orange Line. That's the
23 100,000. There is 1,000,000 gallon tank.

24 Q. Well, you can mark the 100,000 gallon tank,

1 A. No.

2 Q. Do you recall a spill in the Millers River
3 in July 1979?

4 A. No.

5 Q. Do you recall a spill in the Millers River
6 in June 1982?

7 A. No.

8 Q. Do you have any knowledge regarding the T's
9 buyback of captured oil from the Boston and Maine?

10 A. No.

11 Q. Did you ever hear mention that there might
12 have to be an environmental cleanup at the BET?

13 A. No.

14 Q. What was the general ground condition at
15 the BET from 1979 to 1983?

16 A. There was areas that were pretty saturated
17 with oil, fuel oil.

18 Q. Did you ever observe pooled oil at the BET?

19 MS. McDEVITT: Objection.

20 A. I probably did. I would say so.

21 Q. And that was from 1979 to 1983?

22 A. '83, yes.

23 Q. Did you ever observe an oil sheen on water
24 or puddles at the BET from 1979 to 1983?

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Exhibits 1 and 2

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

-----x
BOSTON AND MAINE CORPORATION, :
Plaintiff, :
: vs. : Civil Action
MASSACHUSETTS BAY : No. 05-11656 RCL
TRANSPORTATION AUTHORITY, :
Defendant. :
-----x

DEPOSITION OF PETER G. WILSON, a witness
called on behalf of the Plaintiff, taken pursuant to
the Federal Rules of Civil Procedure, before Linda
A. Walsh, Registered Professional Reporter and
Notary Public in and for the Commonwealth of
Massachusetts, at the Offices of Foley Hoag LLP, 155
Seaport Boulevard, Boston, Massachusetts, on
Tuesday, March 28, 2006, commencing at 1:49 p.m.

PRESENT:

Winston & Strawn LLP
(By Eric L. Hirschhorn, Esq.,
and Susan A. MacIntyre, Esq.)
1700 K Street, N.W., Washington, D.C.
20006-3817, for the Plaintiff.

Foley Hoag LLP
(By Alicia Barton McDevitt, Esq.)
Seaport World Trade Center West, 155
Seaport Boulevard, Boston, MA 02210-2600,
-and-
Massachusetts Bay Transportation Authority Law
Department (by Scott Darling, Esq.)
Room 7760, 10 Park Plaza, Boston, MA
02116, for the Defendant.

* * * * *

1 MS. McDEVITT: Objection. Do you want to
2 state the time period for that?

3 MR. HIRSCHHORN: Sure.

4 Q. During the period -- I'm going to lengthen
5 it a little bit -- from 1979 to 1986 did you ever
6 hear anyone mention the fact that there might have
7 to be a cleanup of this site, of the hazardous
8 substances of this site?

9 A. Yes.

10 Q. And when was that?

11 A. I believe it was prior to construction of
12 the coach house.

13 Q. And when was that?

14 A. I believe "prior" would have been '82-'83.

15 Q. And who mentioned it?

16 A. I think it was Dan Breen on our engineering
17 staff at the time.

18 Q. He worked for the T?

19 A. Yes.

20 Q. Do you know what his title was?

21 A. I don't remember his exact title.

22 Q. Who else was present when he made this
23 statement to you?

24 A. I don't recall anyone else being there.

1 Q. Just the two of you?

2 A. Yes.

3 Q. Where were you when this statement was
4 made?

5 A. I am pretty sure we were at 10 Park Plaza,
6 what was our general office at the time.

7 Q. What was the occasion for the discussion?

8 A. I think it was the fact that these tracks
9 had to be taken out of service.

10 Q. You are describing -- you are pointing to
11 the tracks that run through the coach house?

12 A. Yes.

13 Q. Okay. You don't have to initial it this
14 time.

15 A. Okay.

16 Q. What did he say to you, and what did you
17 say to him?

18 A. I believe Dan had mentioned how -- he had a
19 rough idea of how much cubic yards of material had
20 to be removed for the foundation of this building,
21 and I believe he said that it all had to be tested
22 and analyzed to find a suitable place for it.

23 Q. Did he elaborate on what he meant by a
24 "suitable place"?

1 A. Well, he couldn't -- depending on the
2 amount of contaminants in the soil there were
3 different ways it had to be handled, whether it had
4 to be bagged and taken off site by a hazardous
5 materials handling company or other methods. That
6 would be the result of the testing involved.

7 Q. And do you know what decision ultimately
8 was made on how to handle this earth?

9 A. Not all of it.

10 Q. How much of it do you know about?

11 A. Some of it we hauled to a railroad site in
12 Walpole where we filled this area in to make a
13 parking lot.

14 Q. And the rest?

15 A. I don't know.

16 Q. Do you know what diesel fuel smells like?

17 A. Absolutely.

18 Q. Was it a constant smell when one was
19 on-site at BET during '79 to '83?

20 A. In a lot of areas, yes.

21 Q. You mentioned one incident with, I guess,
22 lubricant coming from some cars which you had gotten
23 under. Did you have other occasions when your shoes
24 or your clothing got soiled with oil or other

1 Q. How do you know that?

2 A. My source of information were my superiors.

3 Q. When you say "your superiors," do you mean
4 Mr. Mark, Mr. MacDonald, and Mr. House?

5 A. Or for a brief time there Mr. Breen.

6 Q. Okay. But it would -- would it have also
7 included the three individuals I just mentioned?

8 A. Yes.

9 Q. Do you recall specifically hearing from one
10 of those individuals about that spill?

11 A. No.

12 Q. Is it possible that with regard to that
13 particular spill you might have heard it from
14 someone else?

15 A. No. It would have been one of those four
16 people.

17 Q. Just give me a moment.

18 A. Take your time.

19 (Pause)

20 Q. I believe you testified earlier that the
21 MBTA would have been in charge of finances for the
22 site?

23 A. Yes.

24 Q. Were any of your job responsibilities

1 related to these financial matters?

2 A. No.

3 Q. So you weren't involved personally in the
4 financial oversight of the site?

5 A. No.

6 Q. Okay. I wanted to go back to the topic we
7 were discussing earlier which involved a
8 conversation you had with Dan Breen concerning
9 construction of the coach house and soil?

10 A. Yes.

11 Q. Do you recall exactly what year that
12 conversation took place?

13 A. No.

14 Q. Who was responsible for the construction of
15 the coach house? Was it the MBTA or the B&M, if you
16 know?

17 A. I believe the MBTA asked the B&M or was
18 it -- I believe they asked the B&M to hire a
19 contractor to build this (indicating).

20 Q. When you discussed what I believe you
21 testified was the need to clean up part of the site
22 related to the coach house, was that limited to this
23 area where the coach house was being constructed?

24 A. Yes.



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST REGIONAL OFFICE

205B Lowell Street, Wilmington, MA 01887 • (978) 694-3200

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Governor

STEPHEN R. PRITCHARD
Secretary

KERRY HEALEY
Lieutenant Governor

ROBERT W. GOLLEDGE, Jr.
Commissioner

AFFIDAVIT OF ADELINE DELBENE

I, Adeline Delbene, depose and state as follows:

1. I am employed as a Management Analyst 3 and the Keeper of Records for the Massachusetts Department of Environmental Protection (MassDEP);
2. The files possessed by MassDEP regarding hazardous site cleanup and remediation at the Boston Engine Terminal (RTN Number 3-2534) have been reviewed for relevant documents that would be responsive to a request from Christine Williams, Esq. of Foley Hoag, who sought to confirm that the Department holds no files regarding the Boston Engine Terminal (RTN Number 3-2534) that are dated prior to 1988;
3. MassDEP does not possess any documents in its files regarding the Boston Engine Terminal dated prior to 1988 with the sole exception being an authorization to discharge into the Millers River under the National Pollution Discharge Elimination System ("NPDES") issued in 1976;
4. MassDEP does not possess any documents in its files indicating that MassDEP contacted the Massachusetts Bay Transit Authority regarding environmental conditions at the Boston Engine Terminal prior to 1988.

I declare under the pains and penalties of perjury that the foregoing is true and accurate.



Adeline Delbene

Date: 3/8/06

WES Associates

65 East India Row, Unit 36E
Boston, MA 02110-3323
877-653-4261
westimpson@ureach.com

28 April 2006

EXPERT REPORT OF WESLEY E. STIMPSON

Qualifications as an Expert

I was employed by Haley & Aldrich, Inc., located in Boston, MA, between 1969 and 2000. I began with the firm as an Assistant Soils Engineer, progressed to Senior Engineer and Project Manager by the early 1980s, and became an Officer shortly thereafter. I held the position of Principal and Senior Vice President when I left the firm. Haley & Aldrich, Inc. was founded as a geotechnical engineering firm and currently provides services in underground engineering, environmental science and environmental management consulting. In the late 1970's and early 1980's I identified an emerging market for environmental waste site cleanup services and moved to position Haley & Aldrich in that market. Haley & Aldrich initially undertook geological and hydrogeological investigations in support of cleaning up Federal Superfund sites. When Massachusetts considered implementing their own version of the Federal Superfund law, MGL Chapter 21E, I moved to specialize in the 21E market. I am currently a Licensed Site Professional, authorized to provide waste site cleanup opinions under the current Massachusetts Contingency Plan, and a registered Professional Engineer in the Commonwealth of Massachusetts.

I have been asked to render an opinion as to whether, in the first four months after the enactment MGL Chapter 21E in 1983, the Massachusetts Department of Environmental Quality Engineering had a policy of enforcing Chapter 21E against landowners such as the Massachusetts Bay Transportation Authority who owned but did not operate industrial sites such as the Boston Engine Terminal. I have also been asked to render an opinion as to whether landowners at that time understood that they could be and would be the focus of enforcement efforts by the Massachusetts Department of Environmental Quality Engineering. In addition, I have also been asked to render an opinion as to whether during that time period the need to dispose of oil contaminated soil at an appropriate disposal facility had any impact upon a party's obligations under Chapter 21E.

I am being compensated in this matter at the rate of \$175 per hour.

A copy of my curriculum vitae is attached to this Expert Report. I have not authored any publications within the past ten years. I have not testified as an expert witness at trial or by deposition within the past four years.

Opinions

It is my opinion that, in the first four months after the enactment MGL Chapter 21E in 1983, the Massachusetts Department of Environmental Quality Engineering did not have a policy of

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enforcing Chapter 21E against landowners such as the Massachusetts Bay Transportation Authority who owned but did not operate industrial sites such as the Boston Engine Terminal.

It is also my opinion that, at that time, landowners did not understand that they could be and would be the focus of enforcement efforts by the Massachusetts Department of Environmental Quality Engineering.

It is my further opinion that, at that time, the need to dispose of oil contaminated soil at an appropriate disposal facility did not have any impact upon a party's obligations under Chapter 21E.

Basis of Opinions

I am advised by counsel for the MBTA that the Boston and Maine Railroad was the operator of the Boston Engine Terminal during this time period. I also understand that the B&M and the MBTA were aware that oil was present in the soils on the Boston Engine Terminal Site at this time. I have also been advised that at some point in or after 1983 there were discussions of the need to landfill excavated soil containing oil in connection with construction of a building on the Site.

In addition to my 30 years of experience in this area, I relied upon the following documents in forming my opinions:

1. MGL Chapter 21E, as it existed in 1983;
2. 1988 edition of the Massachusetts Contingency Plan;
3. "Massachusetts General Laws Chapter 21E - the Super Lien", Chicago Title Insurance Company, January, 1984.

MGL Chapter 21E was initially enacted March 24, 1983. It included provisions that allowed the Commonwealth to place liens on properties that superceded all other liens on the property. This provision, known as the Super Lien provision, made the lending community very uncomfortable and ultimately lead to the development of the real estate environmental due diligence market. In anticipation of this emerging environmental service opportunity, I attempted to market environmental site assessment services in 1981 and 1982 and through 1983. I found very few purchasers of property or financial institutions interested in the service. Current owners of property who had no present plans to sell their property were even less interested in this service.

It was not until well after the enactment of 21E, in 1984 and 1985, that the market began to develop in response to the passage of the Super Lien. During this time period there was a substantial educational push by real estate lawyers, title insurers, lending institutions, myself and other members of the consulting community to communicate the liability and risk associated with the provisions contained in 21E. In addition, the Massachusetts Department of Environmental Quality Engineering (Department, and now MassDEP) was developing the

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Massachusetts Contingency Plan (MCP), 310 CMR 40.000, as required by 21E. The MCP laid out how the Department would implement, administer and enforce the requirements of the statute. Until that time, the Department did not have a structured site identification, reporting and investigation program.

There was no requirement for the owner of a property to proactively investigate, or for the Department to require investigation, if a property were contaminated with oil or hazardous materials in 1983 at the time MGL Chapter 21E was enacted. Even with the promulgation of the MCP in 1988, no clear notification criteria existed for contamination caused by historic releases of oil or hazardous materials. It was not until the development of the 1993 version of the MCP that clear criteria were developed for the notification and remediation of historic releases of oil and hazardous materials.

The Federal Superfund Program and the real estate due diligence market provided the primary means by which sites with historic contamination were discovered in the 1980's. However, the Federal Superfund Program did not apply to sites contaminated solely with oil. With the establishment of the MCP, real estate development also provided a means for site discovery. The Department had no site discovery program when Chapter 21E was enacted, did not have one when the MCP was enacted and with the privatization of the MCP program in 1993, has only begun development of the currently ineffective program. No remediation criteria existed prior to the availability of the MCP. The Department would establish cleanup criteria on a site-by-site basis. With the availability of the MCP, a risked based approached was provided. Under the original and current MCP, remediation of contamination is not required unless unacceptable risk exists at the property. The most common situation were cleanup is not required and contamination can remain in the environment is where it is present below ground surface in a commercial or industrial setting.

A set of laws distinct from Chapter 21E governs the disposal of contaminated materials such as oil soaked soil. By the early 1980s it was generally recognized that if contaminated soil was excavated it had to be appropriately managed, such as landfilling it at a licensed disposal facility. However, if this same soil were not excavated, it could be left in place and not affect a party's obligations under Chapter 21E.

Exhibits

No exhibits have yet been prepared for use at trial.

Signed,

Wesley E. Stimpson

WES Associates

WESLEY E. STIMPSON

Summary of Qualifications

Mr. Stimpson is a licensed professional geotechnical engineer and a Licensed Site Professional (LSP) under MGL Chapter 21E in the Commonwealth of Massachusetts providing services in support of compliance with the Massachusetts Contingency Plan (MCP). He provides professional services in the area of regulatory compliance, remedial response engineering; and hazardous and toxic waste site investigations. Mr. Stimpson is experienced with investigation activities associated with initial site assessments, remedial investigations, feasibility studies and execution of remedial action programs involving soil and groundwater recovery and treatment systems at contaminated sites. This work has been provided under various State and Federal regulatory programs, most recently concentrating on services in support of clients requiring senior LSP services for undertaking response actions in compliance with the MCP. He also provides senior technical support for negotiations with regulatory and other public agencies, financing institutions, PRP's and parties involved with real estate transactions and the sale and development of oil and hazardous material disposal sites.

Mr. Stimpson retired from full time employment at Haley & Aldrich, Inc. in February 2000 after 30 years of service. While at Haley & Aldrich he served as a Principal and Senior Vice President practicing primarily in the area of Brownfield development and MCP compliance. He also was the Project Manager or Associate-in-charge of numerous Haley & Aldrich projects involving investigations and execution of remedial action programs associated with landfills, all types of petroleum products, solvents, manufactured gas plant sites and associated coal tar materials, metal plating wastes and other industrial, commercial and site specific chemicals.

Since February 2000, Mr. Stimpson has volunteered his time in support of the work of the LSP Association (LSPA). The LSPA is the professional organization established to promote the technical and business practices of LSPs practicing in Massachusetts and he actively participates on three committees, contributes articles to the association's newsletter and attends the monthly meetings of LSPA's Board. He also volunteers time to various workgroups established by the Massachusetts DEP to review changes, refinements and increased regulation under the MCP. In these work groups, he works with various members of the DEP program and policy group, provides the technical point of view of a practicing LSP and identifies potential issues that may be of concern to PRPs. He also monitors the meetings and actions of the Massachusetts board of registration licensing LSPs by attending the LSP Board's monthly meetings.

In 2002, Mr. Stimpson founded WES Associates (WESA), a solely owed private consulting practice. Through WESA Mr. Stimpson offers senior level LSP services, third party reviews and expert consultations, litigation support and consultation on matters related to the MCP and related environmental matters. He currently has a contract with the LSP Association for services associated with performing as an interim Executive Director for the organization.

Relevant Third Party and Expert Project Experience

Commercial Facility, Sugarland, VA (1995)

Expert witness for former occupant of building in litigation brought by new owner alleging contamination of property by materials stored and sold. Provided opinions on data quality and regulated and reportable concentrations of contamination in soil and implications on perceived property value.

Municipal Water Supply, Bedford, MA (1993)

Provided expert witness services to U.S. Attorney General's office in defense of litigation brought by the Town of Bedford for contamination of their groundwater supply wells with chlorinated solvents. Implemented complex computer simulation of groundwater flow in complex system of groundwater and surface water interactions to track movement of contaminates from U.S. Navy and U.S. Air Force facilities within one mile from site. Supported mediation efforts that resulted in settlement of litigation.

Industrial Facility, Peterborough, NH (1994)

Expert witness services and support to counsel for insurance company against a claim by the owner of this Superfund site to recover response action costs. Response actions include groundwater treatment, soil treatment using vacuum extraction and sparging, and sediment excavation and disposal.

Contaminated Groundwater Well, Canton, MA (1993)

Expert witness for plaintiff with a contaminated groundwater supply well developed in bedrock. The well was downgradient from a municipal landfill and case claimed that the well had been contaminated with organic and inorganic compounds from the landfill. Client was successful in obtaining a replacement water supply.

Marine Facility, Beverly, MA (1994)

Expert witness for plaintiff to recover costs associated with the remediation of oil contaminated soils. Soil contamination resulted from prior storage of petroleum products at site. Case settled.

Land Taking, South Boston, MA (1998)

Expert witness representing the landowner who property value was substantially reduced by claims that compliance with the requirements of the Massachusetts Contingency Plan would render property valueless. Succeeded in assisting the property owner disprove the claim and win a \$19 million dollar settlement for the value of the property.

Commercial Property, Chelsea, MA (1999)

Expert in mediation for plaintiff to recover projected remediation costs to clean up plaintiff's property that had been contaminated due to the movement of DNAPL contamination in the groundwater from an adjacent, up-gradient property. The mediation did not settle the case and litigation is pending.

DNAPL Response Action, Waltham, MA (2002)

Technical expert and consulting LSP services associated with MCP deliverables and transfer of LSP services to a second party. Work includes the development of a contracting approach and review and comment on bid package for the design and construction of a high vacuum vapor extraction remedial system. Services are provided for the property owner and the PRP group.

Education

Tufts University, Medford, MA; B.S. Civil Engineering 1968
Michigan State University, MI; M.S. Geotechnical Engineering 1969

Professional Registration

Massachusetts/Professional Engineer, Registration No. 29390,
also Maine and New Hampshire Retired

Massachusetts Licensed Site Professional, License No. 2332

Professional Societies

LSP Association (Past President and Director)
Current Interim Executive Director

Honorary Societies and Awards

Tau Beta Pi
National Science Foundation Fellowship

Special Studies and Courses

Hazardous Materials Training (40 hours OSHA) by Haley & Aldrich, Inc., 1988, and required annual training.

Continuing education consisting of numerous short courses and conferences associated with technical and regulatory practice issues.

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE
CORPORATION,

Plaintiff,

Civil Action No. 05-11656 RCL

v.

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY,

Defendants.

**DEFENDANT MASSACHUSETTS BAY TRANSPORTATION
AUTHORITY'S SUPPLEMENTAL OBJECTIONS AND
RESPONSES TO PLAINTIFF'S FIRST SET OF INTERROGATORIES**

Pursuant to Rule 33 of the Federal Rules of Civil Procedure ("Rule 33") and Rule 33.1 of the Local Rules of the United States District Court for the District of Massachusetts ("Local Rule 33.1"), Defendant Massachusetts Bay Transportation Authority ("MBTA") hereby supplements its responses to Plaintiff's First Set of Interrogatories ("the Interrogatories"). The MBTA has only supplemented its responses to those interrogatories: (a) which require correction because, although a correct statement of the MBTA's knowledge at the time they were made, the MBTA has since learned that the information contained in its original response may not be accurate; or (b) which the Boston and Maine Corporation (the "B&M") has requested clarification of the MBTA's prior response.

GENERAL OBJECTIONS

1. The MBTA objects to the "Definitions and Instructions" set forth by Plaintiff insofar as they seek to impose discovery obligations broader than those specified in the Federal Rules of Civil Procedure or the Local Rules of the United States District Court for the District of

Massachusetts. The MBTA will respond to the Interrogatories in a form and manner sufficient to satisfy the requirements of Rule 34 and Local Rule 34.1.

2. The MBTA objects to the Interrogatories to the extent that they seek information that is protected by the attorney-client privilege, the attorney work-product doctrine, or any other privilege or immunity, and to the extent that they seek identification of attorney-client or work-product information prepared after the commencement of this lawsuit.

3. The MBTA objects to each and every Interrogatory insofar as it is vague, ambiguous, overbroad, unduly burdensome, and/or oppressive.

4. The MBTA objects to each and every Interrogatory insofar as it is not reasonably calculated to lead to the discovery of admissible evidence and to the extent it seeks discovery of information beyond the scope of discovery permitted by Rule 26 of the Federal Rules of Civil Procedure.

5. The MBTA objects to the Interrogatories to the extent that they call upon the MBTA to speculate or to draw legal conclusions.

6. The MBTA objects to each and every Interrogatory insofar as it demands identification of "all", "each", and/or "every" document(s), communication(s), act(s), person(s) or omission(s) falling within particular categories, because such a demand will cause undue burden and expense. The MBTA will undertake a reasonable search to identify available documents from which information requested in the Interrogatories can be obtained.

7. The MBTA objects to interrogatories directing the MBTA to "attach hereto" any documents referred to in these Interrogatories. The MBTA has already produced any documents referred to in these Supplemental Interrogatory Responses in connection with the MBTA's

Objections and Responses to Plaintiff's First Request for Production of Documents (the "Document Requests").

8. The following responses and objections are based upon information currently available to the MBTA and its continuing investigation of the matters that are the subject of this litigation. Accordingly, the responses and objections are given herein without prejudice to the MBTA's right to supplement or revise its responses and objections after further investigation, discovery, and trial preparation, and the MBTA expressly reserves the right to so supplement or revise these responses and objections.

9. In providing responses to the Interrogatories, the MBTA does not waive, or intend to waive, any privilege or objection, including, but not limited to, any objection to the competency, relevance, materiality, or admissibility of any of the Interrogatories or their subject matter or the MBTA's responses thereto.

10. The MBTA objects to the Interrogatories to the extent that they seek information which is outside the scope of discovery permitted in this first phase of the litigation relating to the bankruptcy discharge issue as specified in the Joint Statement of the Parties Pursuant to Local Rule 16.1(D) and subsequently ordered by the Court.

SPECIFIC OBJECTIONS AND RESPONSES TO INTERROGATORIES

In addition to the foregoing objections, all of which are asserted as to each Interrogatory as if fully set forth in response thereto, and without waiver thereof, the MBTA makes the following specific objections and responses:

Interrogatory 1:

Describe MBTA's ownership, operational history, oversight, and monitoring at the Site on or before December 31, 1986, including:

- A. The date MBTA commenced ownership and operation;
- B. The date or dates, if any, that MBTA's ownership and operation was interrupted or discontinued;
- C. All names under which MBTA operated or transacted business relating to the Site;
- D. Any additional owners or operators at the Site;
- E. Any lessees or tenants at the Site;
- F. MBTA presence, oversight, and monitoring at the Site;
- G. Attach hereto all Documents relating to the above Interrogatory.

Supplemental Response No. 1:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiver of the foregoing general and specific objections, the MBTA states that it is not aware of any lessees or tenants at the Site prior to December 31, 1986 other than the B&M.

In addition, the MBTA states that it believes that the MBTA's presence, oversight and monitoring of the Site prior to December 31, 1986 was minimal. Specifically, it appears that the MBTA had only a single employee, Richard House, who may have worked at the Site on a full-time basis for some portion of the time period between 1979 and December 31, 1986. Mr. House was a Mechanical Officer who worked with the mechanical personnel of the B&M with regard to matters such as equipment repair and procurement of new equipment. Other than Mr. House, the MBTA does not believe it had any employees who worked at the Site on a full-time basis during the period of B&M's operations. Likewise, to the best of the MBTA's knowledge, it did not have any employees who were involved in oversight or monitoring of the operations at the site

on a day-to-day basis. As stated previously in response to Interrogatory No. 4, the MBTA believes that the Chief Mechanical Officers (Walter Williams and Walter Mark) and the Chief Engineering Officer (William MacDonald) at the time had some general oversight responsibilities relating to the Site. However, as a practical matter, the MBTA believes that these individuals spent little time actively overseeing or monitoring operations at the Site. Further responding, the MBTA notes that the operating agreement between the MBTA and the B&M states that, in performing its obligations under the agreement, the B&M was an independent contractor of, and not an agent of the MBTA. The agreement further states that all personnel of the B&M (and its subcontractors) who were engaged in providing services under the agreement were subject to the direction, supervision and control of the B&M alone, and not the MBTA.

Interrogatory No. 5

Indicate whether MBTA or any of its independent contractors had actual or constructive knowledge of B&M's association or connection with any Releases of Hazardous Materials at or near the Site occurring on or before June 30, 1983. If you contend that MBTA or its independent contractors had no such knowledge prior to June 30, 1983, state each and every fact upon which you base this assertion. If MBTA or any of its independent contractors had actual or constructive knowledge of B&M's association or connection with any Releases of Hazardous Materials at or near the Site on or before June 30, 1983, for each Person with such knowledge provide:

- A. The Person's full name, current address and current telephone number;
- B. The Person's position(s) or job title(s);
- C. The Person's duties and responsibilities in each such position;
- D. The dates when such Person was employed or engaged by MBTA;
- E. The nature of such Person's knowledge; and
- F. Attach hereto any Documents relating to the above Interrogatory.

Supplemental Response No. 5:

The MBTA objects to this Interrogatory on the grounds that it is vague and ambiguous, overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. The MBTA objects to the Interrogatory to the extent that it asks the MBTA to identify the knowledge possessed by individuals who are no longer employed by the MBTA and over whom the MBTA has no control, many of whom are retired or deceased. The MBTA also objects to the Interrogatory to the extent that it asks the MBTA to identify the knowledge possessed by other parties or by individuals employed by other parties. The MBTA further objects to the Interrogatory the extent that it seeks privileged and/or confidential information. Subject to and without waiver of the foregoing general and specific objections, the MBTA states that John Ray, Les Merrill and many other employees of the B&M, who was the MBTA's independent contractor at the Site, had knowledge of the B&M's association or connection with Releases of Hazardous Materials at or near the Site occurring on or before June 30, 1983.

With respect to persons who were employed by the MBTA prior to June 30, 1983, the MBTA has not been able to identify anyone who was a member of its executive staff or senior management who had knowledge of the B&M's association or connection with Releases of Hazardous Materials at or near the Site occurring on or before June 30, 1983. As to others employed by the MBTA, the MBTA believes Richard House likely had knowledge of B&M's association or connection with Releases of Hazardous Materials at or near the Site occurring on or before June 30, 1983. The MBTA does not know the extent of Mr. House's knowledge of such circumstances or events prior to June 30, 1983. In addition, the MBTA believes that Peter Wilson likely had knowledge of B&M's association or connection with Releases of Hazardous Materials at or near the Site occurring on or before June 30, 1983. The MBTA does not know the extent of Mr. Wilson's knowledge of such circumstances or events prior to June 30, 1983.

Further responding, the MBTA states pursuant to Rule 33(d) and Local Rule 33.1(B) that further information responsive to this Interrogatory may be derived from the documents that the MBTA has already produced in this action.

Interrogatory No. 6:

Indicate whether MBTA had any knowledge, acquired on or before June 30, 1983, related to CERCLA, Chapter 21E, or other environmental laws (including common law remedies) concerning Hazardous Materials, and identify each Person at MBTA having such knowledge. For each such Person, indicate:

- A. The Person's full name, current address and current telephone number;
- B. The Person's position(s) or job title(s) at MBTA;
- C. The Person's duties and responsibilities in each such position;
- D. The dates when such Person was employed or engaged by MBTA;
- E. The nature of such Person's knowledge; and
- F. Attach hereto any Documents relating to the above Interrogatory.

Supplemental Response No. 6:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. The MBTA further objects to the Interrogatory to the extent that it asks the MBTA to identify the knowledge possessed by individuals who are no longer employed by the MBTA and over whom the MBTA has no control, many of whom are retired or deceased. The MBTA also objects to the Interrogatory the extent that it seeks privileged and/or confidential information. Subject to and without waiver of the foregoing general and specific objections, the MBTA states that it has been unable to determine if any its current or former employees, including but not necessarily limited to employees in the legal department, may have had knowledge of CERCLA, Chapter 21E, or

other environmental laws (including common law remedies) concerning Hazardous Materials prior to June 30, 1983.

Interrogatory No. 7:

Identify each contact or communication between MBTA and any local, state or federal governmental entity regarding Hazardous Materials located at or near the Site on or before June 30, 1983, or Releases of Hazardous Materials occurring at or near the Site on or before June 30, 1983, and specify further for each:

- A. The date of such contact or communication;
- B. The name, title, current address and current telephone number of each representative of local, state or federal governmental entities present at, transmitting, or receiving such contact or communication;
- C. The name, title, current address and current telephone number of each MBTA representative present at, transmitting, or receiving such contact or communication;
- D. The nature and type(s) of Hazardous Material that was the subject of the contact or communication;
- E. The quantity of Hazardous Material that was the subject of the contact or communication;
- F. The reason for or nature of the contact or communication; and
- G. If the contact or communication was in writing, or was memorialized in writing, attach hereto a true copy of such writing.

Supplemental Response No. 7:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiver of the foregoing general and specific objections, the MBTA states that it is not aware of any communication between the MBTA and local, state or federal governmental entity regarding Hazardous Materials located at or near the Site on or before June

30, 1983, or Releases of Hazardous Materials occurring at or near the Site on or before June 30, 1983.

Interrogatory No. 8:

Identify each contact or communication between MBTA and any local, state or federal governmental entity regarding Hazardous Materials located at or near any location or property other than the Site on or before December 31, 1986, or Releases of Hazardous Materials at any location or property other than the Site on or before December 31, 1986, and specify further for each:

- A. The date of such contact or communication;
- B. The name, title, current address and current telephone number of each representative of local, state or federal governmental entities present at, transmitting, or receiving such contact or communication;
- C. The name, title, current address and current telephone number of each MBTA representative present at, transmitting, or receiving such contact or communication;
- D. The nature and type(s) of Hazardous Material that was the subject of the contact or communication;
- E. The quantity of Hazardous Material that was the subject of the contact or communication;
- F. The reason for or nature of the contact or communication; and
- G. If the contact or communication was in writing, or was memorialized in writing, attach hereto a true copy of such writing.

Supplemental Response No. 8:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiver of the foregoing general and specific objections, the MBTA states that it is not currently aware of any communication between MBTA and any local, state or federal governmental entity regarding Hazardous Materials located at or near any location or property other than the Site on or before December 31, 1986, or Releases of Hazardous Materials

at any location or property other than the Site on or before December 31, 1986, other than at the following sites:

1. Market Street Union STS, Proposed MBTA Station, Lynn, MA. Notification dated July 17, 1986 (RTN 3-53).
2. Granite St., MBTA Pumping Station, Quincy, MA. Notification dated January 28, 1986 (RTN 3-916).

The MBTA has not thus far been able to identify further information concerning these notifications other than that provided herein.

Interrogatory No. 14:

Identify each Person at MBTA who had any knowledge of the purchase of the Site by MBTA from B&M. For each such Person, indicate:

- A. The Person's full name, current address and current telephone number;
- B. The Person's position(s) or job title(s) at MBTA;
- C. The Person's duties and responsibilities in each such position;
- D. The dates when such Person was employed or engaged by MBTA in each such position;
- E. The nature of such Person's knowledge; and
- F. Attach hereto any Documents relating to the above Interrogatory.

Supplemental Response No. 14:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiver of the foregoing general and specific objections, the MBTA states pursuant to Rule 33(d) and Local Rule 33.1(B) that any information that the MBTA possesses

which is responsive to this Interrogatory may be derived from the documents that the MBTA has already produced in this action.

Interrogatory No. 15:

Identify each Person at MBTA who had any knowledge, prior to June 30, 1983, of the case styled *In the Matter of Boston and Maine Corporation, Debtor*, Bankr. No. 70-250-M (D. Mass.). For each such Person, indicate:

- A. The Person's full name, current address and current telephone number;
- B. The Person's position(s) or job title(s) at MBTA;
- C. The Person's duties and responsibilities in each such position;
- D. The dates when such Person was employed or engaged by MBTA in each such position;
- E. The nature of such Person's knowledge; and
- F. Attach hereto any Documents relating to the above Interrogatory.

Supplemental Response No. 15:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiver of the foregoing general and specific objections, the MBTA states pursuant to Rule 33(d) and Local Rule 33.1(B) that any information that the MBTA possesses which is responsive to this Interrogatory may be derived from the documents that the MBTA has already produced in this action.

Interrogatory No. 16:

Identify any actions taken by MBTA prior to December 31, 1984, to determine whether MBTA had any claims, under bankruptcy law or any other law, that could be asserted in the case styled *In the Matter of Boston and Maine Corporation, Debtor*, Bankr. No. 70-250-M (D. Mass.),

describe the nature of any such potential claims, indicate whether MBTA asserted any claims in such case, and attach hereto any Documents relating to the above Interrogatory.

Supplemental Response No. 16:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiver of the foregoing general and specific objections, the MBTA states that it has been unable to determine what, if any, actions it may have taken to determine whether it had any claims, under bankruptcy law or any other law, that could be asserted in the case styled *In the Matter of Boston and Maine Corporation, Debtor*, Bankr. No. 70-250-M (D. Mass.).

Interrogatory No. 23:

If there is any Person who has knowledge or information concerning this matter whose name and address is not listed in any of your answers to the previous Interrogatories, for each such Person state:

- A. Name, current address and current telephone number;
- B. Place of employment and address of same;
- C. Occupation and job title;
- D. A description of the area of knowledge.

Supplemental Response No. 23:

The MBTA objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. The MBTA further objects to this Interrogatory to the extent that it calls for the disclosure of confidential and/or privileged information. Subject to and without waiver of the foregoing

general and specific objections, the MBTA states that it has not identified any person who has knowledge or information concerning this matter whose name and address is not listed in any of its current or prior answers to the B&M's Interrogatories, or who is not identified in the documents that the MBTA has already produced in this action.

As to objections and reservations of rights,

By its attorneys,



John M. Stevens
Alicia Barton McDevitt
FOLEY HOAG LLP
155 Seaport Boulevard
Boston, Massachusetts 02210-2600
(617) 832-1000

Dated: March 27, 2006

As to answers:

I have read the foregoing answers to interrogatories. These answers were prepared by or with the assistance of agents, representatives, attorneys and/or others believed to have relevant information, and with the assistance and advice of counsel, upon which I have relied. The answers set forth herein, subject to inadvertent or undiscovered errors or omissions, are based on and therefore necessarily limited by the records and information still in existence, currently recollected, thus far discovered in the course of the preparation of these answers, and currently available. Consequently, I reserve the right to make any changes in or additions to any of these answers if it appears at any time that errors or omissions have been made therein or that more accurate or complete information has become available. Subject to the limitations set forth herein, said answers are true to the best of my present knowledge, information, and belief. I certify under the penalty of perjury that the foregoing is true and correct.



William A. Mitchell, Jr. *SP*
General Counsel, MBTA

Dated: March 27, 2006

Certificate of Service

I hereby certify that a true copy of the above document was served upon the attorneys of record for the Boston and Maine Corporation, at the addresses listed below, by electronic mail and by regular mail, first class postage pre-paid, on March 27, 2006:

Eric L. Hirschhorn
Susan A. MacIntyre
Winston & Strawn LLP
1700 K. Street, N.W.
Washington, D.C. 20006
202-282-5000



Alicia Barton McDevitt

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE
CORPORATION,

Plaintiff,

Civil Action No. 05-11656 RCL

v.

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY,

Defendants.

AFFIDAVIT OF JANE A. CHMIELINSKI

I, Jane A. Chmielinski, hereby depose and state as follows:

1. I am the President and Chief Operating Officer of DMJM Harris, a transportation and infrastructure company headquartered in New York, New York. I reside in Winthrop, MA. I make this affidavit voluntarily and on the basis of personal knowledge except as otherwise stated.

2. From approximately 1981 to 1993, I was employed by the Massachusetts Bay Transportation Authority (“MBTA”). When I began working at the MBTA in 1981 I was employed in the Construction Directorate, performing communications tasks related to the MBTA’s participation in the American Public Transportation Association, public hearings and other transportation forums.

3. Beginning in the mid-to-late 1980s, my job responsibilities began to gradually include oversight of environmental permitting and compliance issues related to construction projects, including new construction and station modernization. Over time, my responsibilities relating to environmental issues increased, and in 1990 I was put in charge of the MBTA’s

newly-created Environmental Department. I headed the MBTA's Environmental Department from its inception in 1990 through 1993 when I left the MBTA.

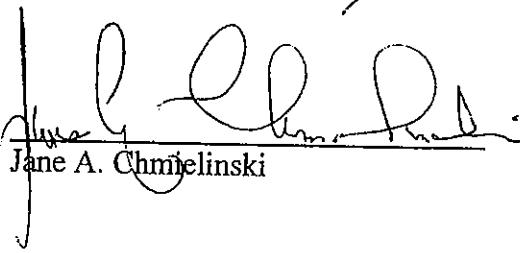
4. I am not personally aware of any person or department at the MBTA besides myself and certain members of the MBTA's Safety Department who had responsibility for oversight or management of environmental matters prior to my gradual assumption of responsibility for environmental permitting and compliance issues related to construction projects in the mid-to-late 1980s. To the best of my knowledge, no environmental department existed prior to 1990.

5. With the exception of certain employees in the MBTA's Safety Department, I am not personally aware of any person or department at the MBTA other than myself who had responsibility for oversight or management of issues related to liability under either CERCLA, Massachusetts General Laws Chapter 21E or the Massachusetts Contingency Plan, prior to 1990 when the Environmental Department was created.

6. I did not become aware of the MBTA's potential liability for environmental cleanup at the Boston Engine Terminal site until the late 1980's when the Massachusetts Department of Environmental Protection became involved with the site.

7. I am not aware of information suggesting that anyone at the MBTA had knowledge of the MBTA's potential liability for environmental cleanup at the Boston Engine Terminal site under either CERCLA, Massachusetts General Laws Chapter 21E or the Massachusetts Contingency Plan prior to my involvement with those issues in the late 1980's.

Signed under the pains and penalties of perjury this 23rd day of May 2006.



Jane A. Chmielewski

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE
CORPORATION,

Plaintiff,

v.

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY,

Defendants.

Civil Action No. 05-11656 RCL

AFFIDAVIT OF MICHAEL A. DIGGIN

I, Michael A. Diggin, hereby depose and state as follows:

1. I am a Vice President of Business Development at TRC Companies, a national environmental, energy and infrastructure consulting company. I work in the Boston, Massachusetts office of TRC Companies and reside in Weymouth, MA. I make this affidavit voluntarily and on the basis of personal knowledge except as otherwise stated.

2. From approximately 1971 to 1991, I was employed by the Massachusetts Bay Transportation Authority ("MBTA"). When I began working at the MBTA in 1971 I was a porter employed in the Transportation Department.

3. Beginning sometime in 1984, following the enactment of Massachusetts General Laws Chapter 111F (effective Sept. 26, 1984), commonly referred to as the Massachusetts Right To Know Law, I began work in the MBTA's Safety Department as the Supervisor of Safety Programs and Procedures. My job responsibilities included supervising and monitoring occupational safety and health issues related to the MBTA's transit operations and began to

gradually include oversight of environmental issues relating to the MBTA's transit operations, including proper management of hazardous substances and spill response procedures.

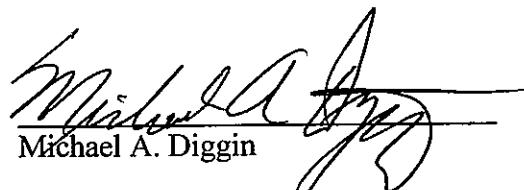
4. In the mid 1980's, I was not personally aware of any other person at the MBTA who was responsible for environmental matters other than Jane Chmielinski, who worked in the Construction Directorate. Whereas Ms. Chmielinski handled environmental matters that arose in the course of construction projects, I handled those environmental issues that arose in the course of the MBTA's transit operations. To the best of my knowledge, no environmental department existed at the MBTA prior to 1990.

5. I am not personally aware of any person or department at the MBTA, other than myself and Jane Chmielinski, who had responsibility for oversight or management of issues related to either CERCLA, Massachusetts General Laws Chapter 21E or the Massachusetts Contingency Plan, prior to 1990 when the Environmental Department was created.

6. Although I occasionally visited the Boston Engine Terminal site in the course of my duties in the Safety Department, I did not become aware of the MBTA's potential liability for environmental cleanup at the Boston Engine Terminal site until the late 1980's when the Massachusetts Department of Environmental Protection became involved with the site.

7. I am not aware of information suggesting that anyone at the MBTA had knowledge of the MBTA's potential liability for environmental cleanup at the Boston Engine Terminal site under either CERCLA, Massachusetts General Laws Chapter 21E or the Massachusetts Contingency Plan prior to my involvement with those issues in the late 1980's.

Signed under the pains and penalties of perjury this 24th day of May 2006.



Michael A. Duggin

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Exhibits 1-3

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

----- -x
BOSTON AND MAINE CORPORATION, :
Plaintiff, :
vs. : Civil Action No.
MASSACHUSETTS BAY : 05-11656-RCL
TRANSPORTATION AUTHORITY, :
Defendant. :
----- -x

DEPOSITION OF JAMES R. HENNEMAN, a witness
called on behalf of the Defendant, taken pursuant to
the Federal Rules of Civil Procedure, before Anne H.
Bohan, Registered Diplomatic Reporter and Notary
Public in and for the Commonwealth of Massachusetts,
at the Offices of Pan Am Railways, Iron Horse Park,
High Street, North Billerica, Massachusetts, on
Wednesday, April 19, 2006, commencing at 9:14 a.m.

PRESENT:

Pan Am Systems (by Robert B. Culliford, Esq.)
Senior Vice President and General Counsel,
14 Aviation Avenue, Portsmouth, NH 03801,
for the Plaintiff.

Foley Hoag LLP
(by Alicia Barton McDevitt, Esq.)
Seaport World Trade Center West,
155 Seaport Boulevard, Boston, MA
02210-2600, for the Defendant.

* * * * *

1 purchase, and they wanted testing done on the
2 different ones, and so they were monitoring that so
3 we'd make our decision on which fuel system we were
4 going to buy.

5 Q. Was this one particular meeting or a series
6 of meetings?

7 A. A series of meetings.

8 Q. Were these meetings held at the Boston
9 Engine Terminal?

10 A. Yes.

11 Q. Do you recall having meetings concerning
12 the one million gallon tank?

13 A. Yes.

14 Q. Do you recall who attended those meetings?

15 A. Just the people I mentioned. The only ones
16 I'm sure were there were Larry Boyd, Les Merrill,
17 George Covino and Walter Mark. Richard Muehlke may
18 have been there, but I'm not real sure of that.

19 Q. Was that one meeting or a series of
20 meetings?

21 A. Many meetings, yes, a series of meetings.

22 Q. Do you recall when those meetings were
23 taking place?

24 A. Not really.

1 Q. Did those meetings take place at the Boston
2 Engine Terminal?

3 A. Yes.

4 Q. Do you recall having meetings about other
5 environmental issues besides the one million gallon
6 tank or the fueling system?

7 A. No, I don't.

8 Q. Were you aware of other meetings concerning
9 environmental issues that you didn't personally
10 attend?

11 A. Yes.

12 Q. What were those?

13 A. The Coast Guard would come up periodically
14 to talk about alleged spills from our area, and I'd
15 see them drive by, and I'd hear later that they came
16 for a meeting with George Covino, and I'm not sure
17 who else at that point.

18 Q. You weren't personally involved in that at
19 all?

20 A. No.

21 Q. Do you recall what time period that was?

22 A. Oh, it was pretty much the whole time I was
23 down there. It would happen probably once every
24 three or four months.

1 Q. Did you ever personally speak with anyone
2 from the Coast Guard?

3 A. No.

4 Q. Do you know if the MBTA was involved in
5 meetings with the Coast Guard?

6 A. I didn't see them do it, no.

7 Q. Were you aware of or did you hear of other
8 meetings concerning environmental issues other than
9 the ones we've talked about?

10 A. No, I don't think so.

11 Q. Going back to the one million gallon tank,
12 can you describe a little bit more what was
13 discussed at the meetings you referred to.

14 A. We tried to determine if in fact we were
15 having leaks in the tank. So we were comparing
16 data, our measurements versus the total of the
17 output from the meters on the output side. Trying
18 to determine what we were going to do about it and
19 when. So I guess that's really all the meetings
20 were about.

21 Q. Was there discussion at these meetings
22 about the need to clean up soil that had been
23 contaminated as a result of a potential leak from
24 the tank?

1 A. I don't recall that.

2 Q. The conversation was more focused on
3 identifying whether a leak existed; is that correct?

4 A. That's correct.

5 Q. Is it fair to say, then, there was no
6 discussion about the consequences of the leak --
7 strike that question. At those meetings did anyone
8 express concern about the effects of a leak from the
9 tank to the environment?

10 A. Yes.

11 Q. What was that discussion?

12 A. We wanted to stop any leak, because we
13 don't want any more complaints from the Coast Guard,
14 we didn't want to be polluting the property. So if
15 there was a leak, we needed to stop it.

16 Q. Was the concern about the leak, then,
17 primarily that leaking oil was running through the
18 drainage system to the oil-water separator and into
19 the Miller's River?

20 A. I doubt that was our only concern.

21 Q. What were the other concerns, then?

22 A. Well, if there was a leak, we were losing
23 product, it was costing us money, we were obviously
24 contaminating the environment. And we didn't want

1 to do either, so we wanted to stop it.

2 Q. Did anyone mention at the meeting any
3 concern from environmental regulators that the tank
4 -- strike that question. Was there discussion at
5 these meetings concerning any involvement by
6 environmental regulators in the leaking tank issue?

7 A. Not to my knowledge.

8 Q. Going back to the conversations you said or
9 the meetings, rather, that you said you had about
10 the fueling system, can you describe what was
11 discussed at those meetings in a little more detail?

12 A. Sure. We needed a fueling system that
13 would shut off automatically when the tanks were
14 full versus the present system of waiting until it
15 come out the overflow to realize that it was full.
16 And we wanted one that would look to work the most
17 reliably.

18 Q. Why did the system need to be changed?

19 A. The system was manual before that, whereas
20 a laborer would hook a hose up to a locomotive, turn
21 on the fuel, and wait to see it come out an overflow
22 on the locomotive and then shut it off. That's how
23 he knew it was full, it's the only way he knew it
24 was full.

1 Q. Did the old system cause a problem?

2 A. Yes.

3 Q. What problem was that?

4 A. Fuel was going on the ground.

5 Q. Where was that at the site?

6 A. Right outside our main offices, directly
7 across from my office.

8 Q. At the meetings concerning the fueling
9 system, was there any discussion of the need to
10 clean up contaminated soil as a result of those
11 fueling spills?

12 A. I don't recall that.

13 Q. Was there discussion of any involvement
14 from environmental state or federal regulators in
15 the fueling spills?

16 A. Not that I recall.

17 Q. You said you saw the Coast Guard onsite
18 from time to time.

19 A. Yes.

20 Q. Did you ever see any other environmental
21 regulators on the site?

22 A. Not that I recall.

23 Q. No one from the state government, related
24 to the environmental department of the state

Volume I
Pages 1 to 145
Exhibits 1-8

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

-----x
BOSTON AND MAINE CORPORATION, :
Plaintiff, :
vs. : Civil Action No.
MASSACHUSETTS BAY : 05-11656-RCL
TRANSPORTATION AUTHORITY, :
Defendant. :
-----x

DEPOSITION OF ROGER D. BERGERON, a witness
called on behalf of the Defendant, taken pursuant to
the Federal Rules of Civil Procedure, before Anne H.
Bohan, Registered Diplomate Reporter and Notary
Public in and for the Commonwealth of Massachusetts,
at the Offices of Pan Am Railways, Iron Horse Park,
High Street, North Billerica, Massachusetts, on
Tuesday, April 18, 2006, commencing at 9:09 a.m.

PRESENT:

Pan Am Systems (by Robert B. Culliford, Esq.)
Senior Vice President and General Counsel,
14 Aviation Avenue, Portsmouth, NH 03801,
for the Plaintiff.

Foley Hoag LLP
(by Alicia Barton McDevitt, Esq.)
Seaport World Trade Center West,
155 Seaport Boulevard, Boston, MA
02210-2600, for the Defendant.

1 Q. Do you know what they were trying to clean
2 up?

3 A. I do know they were trying to clean up the
4 area behind the general -- behind the office
5 building, the stores department.

6 Q. But I'm still not sure -- what I'm trying
7 to ask you is, what were they planning to do? What
8 was this clean-up work; what did it involve?

9 A. In any enginehouse area, you have an
10 accumulation of heavy greases and all that that go
11 into the traction motors, in anyone's enginehouse
12 anyplace in the United States. And that stuff drips
13 and leaks and gets into the ballast section, as well
14 as the storage of equipment that sits there. And
15 some of it is diesel fuel; some of it is the grease
16 from the traction motors; some of it is lubricants
17 that go into greasing the bearings for the traction
18 motors. Things of that nature.

19 Q. So what needed to be done with respect to
20 that material you just described?

21 A. That would have to be remediated however
22 they chose to do it. You can remediate areas onsite
23 or you can completely remediate the areas by putting
24 in a container and bringing it to a waste site that

1 will accept high levels. It depended upon what was
2 the most reasonable and practical.

3 Q. Who was discussing this work?

4 A. At the time that was the B&M's construction
5 group, and Gary Gordon would be the head of
6 construction at that time. That was 1980. And the
7 meeting, the meeting was Richie Leonard that was in
8 the commuter rail section, he worked for the Boston
9 and Maine. Bill McDonald from the MBTA was in the
10 meeting. I think there was a guy named Gene
11 Scoroposki there.

12 Q. Scoroposki?

13 A. Yes.

14 Q. And you discussed this with those
15 individuals?

16 A. They had the discussions on what they were
17 going to do. My problem was, can we get a track
18 through there when they're done.

19 Q. Do you recall anyone else being at the
20 meeting besides the four individuals you just named?

21 A. No, no, I can't recollect. There were a
22 few other faces at the meeting, but I can't identify
23 them.

24 Q. Did these discussions occur over time, or

1 construction was finally let out by the T, I was not
2 involved with the project, no.

3 Q. Do you know when that meeting took place?

4 A. It was in 1980, 1981, in that time frame.

5 Q. Would it have been close in time to the
6 time the coach house was constructed?

7 A. It would be about a year away from the time
8 the coach house was constructed, maybe a year and a
9 half.

10 Q. Is it possible the coach house was
11 constructed in 1984?

12 A. Right around that time, yeah, 1985, in that
13 area.

14 Q. So is it possible, then, that the meeting
15 was later than 1980, which you just said, more like
16 1983 or 1984?

17 A. It could very well have been, yes.

18 MS. McDEVITT: Off the record for just a
19 second.

20 (Recess from 1:11 to 1:18 p.m.)

21 MS. McDEVITT: I have just a couple more
22 questions.

23 BY MS. McDEVITT:

24 Q. Mr. Scoroposki you mentioned. What was his

**PHASE II
COMPREHENSIVE SITE ASSESSMENT
MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY
COMMUTER RAIL MAINTENANCE FACILITY
SOMERVILLE, MASSACHUSETTS
VOLUME I**

Massachusetts Department of
Environmental Protection
Site No. 3-2534

PREPARED FOR:
Gannett Fleming, Inc.
Braintree, Massachusetts

PREPARED BY:
GZA GeoEnvironmental, Inc.
Newton Upper Falls, Massachusetts

August 1991
GZA File No. M-4850.70

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August 23, 1991
GZA File No. 4850.70-C,PC
4850-C



Mr. Michael E. Haire
Gannett Fleming, Inc.
150 Wood Road
Braintree, Massachusetts 02184

320 Needham Street
Newton Upper Falls
Massachusetts 02164
617-969-0050
FAX 617-965-7769

Re: Phase II - Comprehensive Site Assessment Report/
Commuter Rail Maintenance Facility
Somerville, Massachusetts

Dear Mr. Haire:

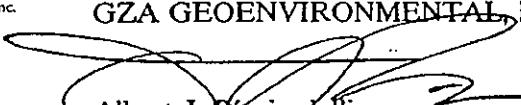
In accordance with our agreement under Supplement Agreement No. 13 to Contract Number 065-044/X2PS12 with the Massachusetts Bay Transportation Authority (MBTA) dated February 22, 1989, GZA GeoEnvironmental, Inc. (GZA) has prepared the attached Phase II Comprehensive Site Assessment report for the above-referenced site. This report was prepared by Mr. Samuel W. Joffe and Mr. Adam M. Fasano of our staff under the direction of the undersigned. It was prepared in accordance with the requirements of the Massachusetts Contingency Plan (310 CMR 40.545) and is one of the required submittals to the Massachusetts Department of Environmental Protection for non-priority waivered sites.

Please forward a copy to the MBTA for their review. If you or the MBTA have any comments on the attached, please contact the undersigned at (617) 969-0050.

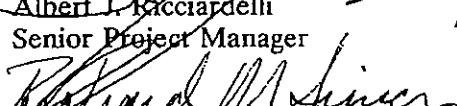
A Subsidiary of GZA
GeoEnvironmental
Technologies, Inc.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.


Albert J. Ricciardelli
Senior Project Manager


Richard E. Doherty
Project Reviewer


Richard M. Simon
Principal

AJR/RMS
Attachments: Report

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EXECUTIVE SUMMARY

GZA GeoEnvironmental, Inc. (GZA) conducted a Phase II - Comprehensive Site Assessment of the Massachusetts Bay Transportation Authority's (MBTA) Commuter Rail Maintenance Facility (CRMF) site, also known as the Boston Engine Terminal (BET) in Somerville, Boston, and Cambridge, Massachusetts. This study was conducted under subcontract to Gannett Fleming, Inc. (GFI) in support of the MBTA's proposed reconstruction of the CRMF site. The study was conducted in accordance with 310 CMR 40.000, the Massachusetts Contingency Plan (MCP).

The approximately 34-acre site is currently used to maintain and repair locomotives and rail cars. The site is located in an industrial area, approximately bounded by Interstate Route 93 to the north, the Gilmore Bridge to the east, the Boston & Maine (B&M) rail yards to the south, and the Conrail Grand Junction Branch railroad tracks to the west. The site is covered by railroad tracks, several buildings, and aboveground diesel fuel storage tanks. Underground utilities at the site include diesel fuel, natural gas, water, septic systems, electricity, storm drains, steam, and compressed air.

According to historical information obtained by GZA, the CRMF site was formerly a tidal marshland drained by the Miller's River. Railroad operations began at the site in approximately 1875; some of the present structures date back to 1929. The B&M owned the site from approximately 1929 to 1976, when the property was sold to the MBTA. The site is currently operated (for the MBTA) by Amtrak.

Various hazardous materials and oils are used at the CRMF site. Diesel fuel is currently stored in a 100,000-gallon tank. In 1990, a 1,000,000-gallon tank formerly used for diesel storage was decommissioned, and two new 175,000-gallon tanks, which are not yet in service, were installed. Diesel fuel use for locomotives ranges from approximately 70,000 to 100,000 gallons per week. Virgin locomotive crankcase oil is stored in the Diesel Shop in an aboveground 15,000-gallon tank. Other hazardous materials and oils used at CRMF include cleaners, solvents, refrigerants, and various petroleum products.

Three tanks used for storage of waste oil and/or used hazardous materials were identified: an underground, 25,000-gallon salvaged oil tank, an aboveground, 15,000-gallon used crankcase oil tank, and an aboveground, 15,000-gallon waste oil tank adjacent to an oil/water separator. Disposal of tank contents is handled by contract with various waste haulers as the need arises. Some hazardous materials and oil may enter the site drainage system, which reportedly leads to an oil/water separator and then to the Miller's River.

Past documented releases of hazardous material and oil at the CRMF include diesel fuel from the floor of the 1,000,000-gallon tank, oil released to the Miller's River, and diesel fuel from a broken pipe in the Yard 5 area. The majority of the reported releases involve petroleum products. A 1984 oil recovery study by Groundwater Technology, Inc. and a 1989 Phase I - Limited Site Investigation by GZA documented the presence of petroleum in soil, groundwater, and as a separate product phase at the CRMF site.



As part of the current Phase II field study, GZA conducted a shallow soil gas survey, a subsurface exploration program, and a sampling and analysis program. The study was designed to build on the results of previous site studies and to fill in data gaps to fulfill MCP requirements and to support the design of remedial alternatives.

Soils encountered at the site generally consisted of fill, overlying sands, overlying silts and clays, overlying glacial till. Layers of organic silt and peat were occasionally encountered below the fill. Severely weathered argillite bedrock was encountered at depths from 28 to 75 feet in borings performed by GZA during a geotechnical study at the site.

Local groundwater flow appears highly variable. Groundwater was observed at depths from approximately 2 to 13 feet below the surface. Groundwater elevations ranged from approximately 2 to 10 feet above mean sea level. Rainfall, utility lines, buried objects, and on-site sources of water appear to strongly influence groundwater and floating product flow at the site.

Contamination was detected at the site in soil, groundwater, and as separate-phase petroleum product. The primary contaminant is weathered diesel fuel. Chlorinated VOCs, common components of industrial solvents, were detected in soil gas and groundwater samples from the western portion of the site, in the vicinity of an underground salvaged oil tank.

Migration of product and groundwater from the site may be significantly affected by site utilities such as the storm drainage system. It appears that a leaky 60- by 66-inch stone and wood culvert running along the northeast side of the site may be intercepting floating oil and limiting off-site migration. Storm drainage from the CRMF site appears to flow through an oil/water separator to the Miller's River, and then to Boston Inner Harbor.

As part of the Phase II study, a risk characterization was completed to evaluate potential public health and environmental risks under current and reasonably foreseeable uses of the site. Under current use of the site, workers were initially identified as potential receptors in an exposure scenario involving direct contact and inhalation exposure associated with contaminated surface soil. Our evaluation indicated that during typical worker activities, the potential for direct contact and



inhalation exposure is limited. In addition, the potential for trespassers to access the site and be exposed at a significant frequency is limited.

Migration of contaminants in groundwater and product to off-site water supplies or surface water was also evaluated. Groundwater flow and storm drainage from the site do not appear to be upstream of off-site receptors, including water supplies or well recharge areas. Contaminated groundwater and product may, however, enter the drainage system and be discharged to the Miller's River and ultimately to the Boston Harbor. No food chain pathways were identified other than the potential ingestion of fish caught by recreational fisherman from Boston Harbor. However, the incremental contribution of contaminants from the site is likely to be small. Our evaluation indicated that current risks to off-site human receptors were limited, however, a potential impact to environmental receptors may exist.

An extensive reconstruction of the site is planned in the future, including excavation activities. As part of the site redevelopment, an oil recovery/groundwater remediation system has been proposed. The MCP requires the characterization of risks under conditions of no remediation. Based on the nature of these activities, the potential for worker exposure to soils and groundwater is likely to increase. Therefore, these exposure pathways were evaluated in the public health risk characterization. Since it is unlikely that water supply wells or other off-site receptors will be located in the area in the future, the potential impact of off-site migration would be limited to environmental receptors.

The results of the quantitative evaluation of on-site future worker exposures indicated that under conservative assumptions, workers exposed to petroleum contaminants, including product and polycyclic aromatic hydrocarbons (PAHs), in soil and groundwater during future construction activities, may be subject to risks in excess of DEP risk limits. In addition, measured concentrations of iron and manganese in groundwater samples exceeded Massachusetts groundwater standards.

Based on these results and the requirements of the MCP, remediation at the site would be required. We would recommend the use of protective clothing for workers involved in site development activities, including gloves and long-sleeve shirts, to reduce the potential for direct contact exposure. In addition, the installation of a groundwater remediation system would limit future worker exposure during excavation and reduce the potential for migration of site contaminants to off-site environmental receptors.

1.00 INTRODUCTION

1.10 PURPOSE AND SCOPE

 This report presents the results of a Phase II - Comprehensive Site Assessment, as defined by Chapter 310, Section 40.000 of the Code of Massachusetts Regulations (310 CMR 40.000), of the Commuter Rail Maintenance Facility (CRMF), formerly the Boston Engine Terminal (BET), site in Somerville, Boston and Cambridge, Massachusetts. GZA GeoEnvironmental, Inc. (GZA) completed this study in accordance with our agreement with Gannett-Fleming Inc. (GFI), consulting engineers to the current CRMF site owner, the MBTA. The study was conducted in accordance with our proposals dated August 10, 1987 and August 21, 1988, and MBTA Contract No. 065-044.

The site is scheduled for extensive refurbishment, which is currently in progress. In order to coordinate remedial efforts with the planned renovations, the DEP-approved additional explorations and testing to be undertaken as short-term measures (STMS), as described in the MCP (310 CMR 40.542). Results of these explorations are incorporated within this report.

The purpose of this study is to fill in data gaps and confirm results of previous studies, to evaluate potential risks that the site poses to human health and the environment, and to provide data needed to develop remedial response alternatives.

The scope of work for this study (Appendix N) included the development of a site-specific Health and Safety Plan (HASP); a review of previous site engineering reports; a search for and review of further information on subsurface utilities; a shallow soil gas survey; a subsurface exploration and monitoring well installation program, the collection and laboratory analysis of soil, groundwater, and product samples; a groundwater and product elevation survey; wellpoint permeability testing; the identification of human and environmental receptors; a human health and environmental risk characterization; and the preparation of this report, documenting these efforts.

The analyses, conclusions, and recommendations presented in this report are subject to the limitations provided in Appendix A.

1.20 REPORT ORGANIZATION

This report is presented in nine sections. Section 1.00 describes the purpose and scope of our study and outlines its contents. A description of the site buildings, grounds, utilities, history, and previous studies of relevance is presented in Section 2.00. The types and quantities, disposal practices and past releases of hazardous material and oil

at the site are presented in Section 3.00. A description of the field work and chemical analyses performed during our study is presented in Section 4.00. The site's geology and groundwater flow characteristics are discussed in Section 5.00. The results of chemical analyses performed on soil gas, soil, groundwater, and product samples are presented in Section 6.00. An evaluation of contaminant migration is presented in Section 7.00, a human health and environmental risk assessment is presented in Section 8.00, and a summary of our findings, conclusions, and recommendations is presented in Section 9.00.



GZA conducted this study in three steps. Initial site investigation activities performed during the Phase I study included a review of previous site studies; a site reconnaissance and inventory of existing monitoring wells; a review of available pertinent municipal and DEP records, utilities drawings, and available information on the use of hazardous materials and oil at the site; a shallow soil gas survey; the installation of 13 soil borings and groundwater monitoring wells; and the collection and laboratory analysis of soil and groundwater samples. Following these initial activities, supplemental field investigations were performed, including the performance of additional shallow soil gas survey work; the installation of 14 soil borings and 12 monitoring wells; the measurement of water levels in monitoring wells; and the collection and laboratory analysis of soil and groundwater samples. The activities listed above were presented in the Phase I Report, dated April 1989 (GZA File No. M-4850.25).

Additional data needed to fulfill MCP requirements for a Phase II - Comprehensive Site Assessment were collected and analyzed during the current Phase II study. Twenty-one soil gas samples, four soil borings, and four monitoring wells were installed; soil, groundwater, and petroleum product were sampled and analyzed; wellpoint permeability tests were performed; groundwater elevations were monitored; and additional plans and information on the utility network were obtained. New soil borings and monitoring wells installed as part of GZA's geotechnical studies and a Parsons-Brinckerhoff drain line study were incorporated into our analysis.

Data from these studies along with Phase II data are included in the appendices. Data presented in the appendices of the Phase I report are not duplicated in the appendices of this report.

2.00 BACKGROUND

2.10 SITE DESCRIPTION

The CRMF site is used to maintain and repair MBTA locomotives and rail cars. The site occupies approximately 34 acres in Somerville, Boston and Cambridge,

Massachusetts (see Figures 1 and 2). The CRMF site is currently owned by the MBTA and operated by Amtrak, under contract to the MBTA. The CRMF site is roughly bounded by:

- Interstate Route 93 and the MBTA Orange Line railroad tracks to the north;
- The Gilmore Bridge (also known as the Prison Point Bridge) to the east;
- The Boston and Maine Railroad Corporation (B&M) piggyback railroad yards to the south; and,
- The Grand Junction Branch railroad tracks to the west.

The locations of these boundaries and the site property line are shown on Figure 2. (Note that MBTA-owned property extends beyond the figure boundaries to the northwest, southwest, and northeast of the CRMF site.)

2.11 Buildings

Major buildings on the site are shown on Figure 2, and are primarily used for the following purposes:

- Engine House (or Round House) - originally used to maintain steam locomotives; currently used for material storage, coach train rebuilding, and engine repair.
- Power House - originally supplied power to the CRMF; currently abandoned and awaiting demolition.
- Budd House - originally used to service self-propelled rail diesel cars (known as "Budd cars"); currently used to fuel, "sand", and lubricate diesel locomotives.
- Diesel Shop - used to inspect, maintain and repair diesel locomotives.
- Storeroom - originally used for general parts storage; currently used as a pipe shop and maintenance facility.
- Coach House - used for daily service inspection and repair of diesel-hauled coaches.

Other structures include an office building, three aboveground diesel oil storage tanks with capacities of 100,000 gallons and two of 175,000 gallons. The 175,000-gallon aboveground fuel storage tanks were installed in early 1990.

2.12 Grounds

As shown on Figure 2, most of the site is covered with railroad tracks. Among the most frequently used tracks are the New Hampshire Main Line, which runs roughly parallel to the northeastern site property line, and the Fitchburg Main Line, which runs roughly parallel to the southern site property line.

Areas of tracks used for making up and storing trains are referred to by yard numbers (see Figure 2). Yard 5, located in the center of the CRMF site, is occupied by several fuel platforms and a sanding system. (Sand is used in locomotives to increase friction between rails and wheels.) Yard 14, located southwest of the Coach House, is used primarily for train storage. East of Yard 14, the MBTA Storage Yard is used to store scrap metal, railroad ties, and other material. Yard locations are shown on Figure 2.

An exterior rail car washer, consisting of a wash stand and rinse stands, is located to the south of the Budd House (see Figure 2). Railcar washing is performed daily in the summer and when weather permits in the winter.

2.13 Utilities

A complex network of utilities exists at the CRMF site. Discussions with representatives of Amtrak, the MBTA and GFI revealed only limited information on specific utilities. Utility information compiled from plans available to us is depicted on Figures 3 and 4. This information does not include all utilities present at the CRMF site; for example, detailed information on steam and air lines could not be obtained. Also, some of the utilities shown may currently be inactive.

Utilities at the CRMF site include water, storm drainage, septic systems, natural gas, electricity, diesel oil, steam and compressed air. Approximate locations of water lines, storm drains, and site septic systems are shown on Figure 3. A septic tank located between the Engine House and the Coach House is believed to overflow to the storm drain system. Other site septic tanks reportedly are also connected to storm drains, but this could not be confirmed from available site utility drawings.

A reportedly abandoned oil/water separator is shown on historical plans at the fuel platforms northwest of the Diesel Shop. Limited information concerning this oil/water separator was available from Amtrak and MBTA officials. According to plans supplied by GFI, only one of the five fueling stations northwest of the diesel shop is still in use.

Two main storm drainage systems, along the northeastern and southern boundaries of the site, flow to an oil/water separator on the southeastern portion of the site, then to drain lines that carry water to the Miller's River. The separator and



associated sumps are operated by Amtrak personnel. Near the southern site boundary, a storm drain flows eastward, increasing in size from 30 to 48 inches. A 60- by 66-inch stone and wood culvert extends along the northeastern portion of the site; this culvert connects to the 48-inch drain as shown on Figure 3.

A diver's inspection of this culvert performed for Parsons Brinckerhoff/Seelye Stevenson as part of their drain line study is presented as Appendix B. The culvert appears to be leaky and partially obstructed. The invert appears to be below the water table, in part. A 66-inch combined sewer flows southwesterly through the oil/water separator area; however, available plans show no connection to the CRMF storm drain system or the oil/water separator.

The locations of natural gas, electric, and diesel oil lines are shown on Figure 4. Gas lines are shown only to the Meter House west of the former site of the 1,000,000-gallon tank. From the Meter House, gas lines run to track switches throughout the CRMF site, but their exact locations were not available. Natural gas-fired heaters are used to de-ice the track switching mechanisms.

Diesel oil currently enters the CRMF system through a fill station located to the east of the 100,000-gallon tank, and then flows to the Pump House, where it is pumped to either of the two main site fuel storage areas (the 100,000-gallon and the two new 175,000-gallon storage tanks in the northern portion of the site). The 1,000,000-gallon fuel tank in the northeastern portion of the site was demolished and removed in 1990. Oil from the tanks is pumped to fueling areas located southeast of the Coach House, northwest of the Diesel Shop, inside the Budd House, and in Yard 5. A fuel line emerging from below ground feeds a stationary rail tank car outside the Engine House. This car has an estimated capacity of 5,000 gallons and reportedly stores oil for use in the Engine House boilers. The location of this car is shown on Figure 4.

Older site plans show other fuel line routings. For example, fuel lines to the platforms west of the Diesel Shop apparently once ran along the Fitchburg Main Line. It is not known if these lines were removed or abandoned in place. Figure 4 shows a fuel line running west from the Budd House to a tank that we could not locate. This may be an existing or former underground tank or a former aboveground tank.

Other utilities reportedly present at the CRMF site include steam lines and compressed air lines. According to Amtrak personnel, steam lines primarily run underground, with the exception of aboveground lines near the Engine House. Compressed air, used for track switches and machinery, originates from compressors in the Diesel House and the Engine House. Some of the compressed air lines run underground.

2.20 USE OF SITE AND SURROUNDING AREA

To obtain information on the history of use of the CRMF site and the surrounding area, GZA consulted historical maps and contacted the Somerville Assessor's Office, Building Department, and the Boston and Somerville Public Libraries.

In the 1700s, the site consisted mostly of tidal marshland drained by the Miller's River, which discharged into Boston Harbor near the eastern boundary of the present site. Cobble Hill (also known as Miller's Hill) existed at this time to the west of the site, near the present Somerville Industrial Park.

In 1839, the Charlestown Branch Railroad was constructed to connect North Cambridge and Charlestown, Massachusetts. A portion of this railroad line ran through the site near the present Fitchburg Main Line. The railroad tracks were probably supported by a trestle because they crossed the marshland that occupied the CRMF site at that time. The Charlestown Branch became a part of the Fitchburg Railroad in 1895.

An 1874 map depicted the Grand Junction Railroad, which forms the western border of the site, and the Eastern Railroad, which is now the New Hampshire Main Line. The Grand Junction Railroad was shown on dry land, while the Eastern Railroad appeared to cross the tidal marshland.

According to another historical map, much of the land east of the site (in the vicinity of the present Boston Sand and Gravel Company) was filled and covered with tracks by 1875. Engine houses were operated east of the site by the Fitchburg Railroad and the Eastern Railroad. The B&M owned tracks north of the present MBTA Orange Line tracks. The triangular area between the Fitchburg, Eastern, and Grand Junction Railroads (now the CRMF) was shown as undeveloped property drained by the Mill Pond Channel. Although the map did not show the outlet or flow direction of the channel, it may have drained to the Miller's River to the south. The river may have formed the city line between Somerville and Cambridge at the time. It appears from the map that the CRMF site was still mostly tidal marshland.

According to notes accompanying a 1914 Fitchburg Railroad map, the Somerville portion of the site was purchased by the Fitchburg Railroad in 1880. The map states that the former owner of the property was the Massachusetts General Hospital, which also owned the abutting McLean Asylum. Licenses to fill both the Somerville and Charlestown portions of the CRMF property were issued by the Commonwealth of Massachusetts later in 1880. In 1896, the McLean Hospital moved to its present location in Waverly (Belmont), and the Boston and Lowell Railroad yards expanded into the Cobble Hill area.

→ A 1901 City of Boston map shows most of the site as covered with tracks. A Fitchburg Railroad engine house is shown in the southeastern portion of the present Yard 5 area. An approximately 900-foot-long paint shop is shown north of the present Budd House, near the area now occupied by the MBTA Orange Line.

The present Engine House and Power House were constructed in 1929; the site was acquired by the B&M Railroad at approximately this time. The 50 bays of the Engine House were originally fed by a turntable which operated at the center of a circle formed by the Engine House. A 1930 B&M plan of the site showed wash stands, three cinder pits, and a 2,000-ton coaling plant in the Yard 5 area. The plan also showed two water tanks and a sand plant near the location of the present Budd House.

The Storeroom and Diesel House were built in approximately 1947 to maintain diesel-powered locomotives. The 1,000,000-gallon diesel fuel tank was installed around 1949; the 100,000-gallon tank was installed in approximately 1952. The Budd House was built in 1957 to maintain the B&M's fleet of Budd rail diesel cars.

Throughout the early twentieth century, Cobble Hill was gradually leveled and used for fill. This area was cleared during the 1950s for construction of the present Somerville Industrial Park.

Also during the twentieth century, the Miller's River was gradually contained in a culvert, filled over and covered with tracks. A 1966 aerial photo shows a portion of the river located to the west of the Gilmore Bridge and near the present location of the oil/water separator; a 1977 photo showed this portion as filled in. Presently, the only portion of the river not in a culvert is an approximately 500-foot-long stretch near Boston Sand and Gravel Company, southeast of the site.

The site was purchased from B&M by the MBTA in 1976. The B&M continued to operate the CRMF until approximately 1986. Amtrak has operated the site (under contract to the MBTA) from 1986 to the present time.

The Engine House turntable was removed in approximately 1973. As a result, many of the engine house bays were no longer accessible to trains. The northeast portion of the Engine House thus fell into disuse and was demolished in 1985. Figure 2 shows the extent of both the former and present Engine House.

More recent additions to the site include the Pump House, which was reconstructed in 1983 after the former structure was destroyed by fire. The Coach House, located on the southern portion of the site, was constructed in 1984.

→ 2.30 PREVIOUS SITE STUDIES

GZA reviewed previous engineering studies on the site conducted by four firms: Groundwater Technology, Inc.(GTI); Rizzo Associates, Inc.(Rizzo); Kaselaan and D'Angelo Associates, Inc.K&D); and GZA.

2.31 Groundwater Technology, Inc. Study



In July 1984, GTI completed an Oil Recovery Study at the CRMF site. The study, prepared for the MBTA, included the installation of 15 groundwater monitoring wells, pump testing of four wells, and laboratory analysis of groundwater and/or product samples from six wells. The purpose of this study was to evaluate the presence and distribution of floating product, and to assess the economic feasibility of recovering separate-phase petroleum product.

GTI identified four areas of floating product, the largest of which was near the fuel platforms in the Yard 5 area. In addition, areas of "suspected" product accumulation were noted around the 1,000,000-gallon diesel oil tank and in the vicinity of an overhead natural gas pipeline. However, the basis for these suspected petroleum product areas was not stated in GTI's report. Groundwater contour maps developed by GTI showed groundwater flow at the site to be generally to the north.

Pump tests were performed by GTI at wells MW-8, MW-10, MW-14 and MW-15; the locations of these wells are shown on Figure 2. Only wells MW-15 and MW-8 presently exist; wells, MW-10 and MW-14 have since been damaged or destroyed. Aquifer parameter estimates developed by GTI are listed below:

| Well | Hydraulic Conductivity (gpd/ft ²) | Transmissivity (gpd/ft) | Pore Velocity (ft/day) |
|-------|---|-------------------------|------------------------|
| MW-8 | 20 | 400 | 0.02 |
| MW-10 | 5 | 100 | 0.04 |
| MW-14 | 4,300 | 86,000 | 2.70 |
| MW-15 | 15 | 310 | 0.01 |

Well MW-14 was pump tested at 47 gallons per minute (gpm); the other wells were tested at 1 gpm. The GTI report suggested that the higher transmissivity observed in the MW-14 area may have been due to a coarse channel bar deposit or a greater sand and gravel fill thickness at this location. An oil recovery test performed concurrently with the pump test indicated that 48 gallons per day (gpd) of oil could be initially recovered from MW-14.

Laboratory analysis of five groundwater samples showed dissolved hydrocarbons in MW-8, MW-14, and MW-15 and no dissolved hydrocarbons detected in MW-10 and MW-11. A petroleum product sample from MW-1 met heating fuel specifications but contained too much water and sediment to be used as a diesel fuel.

The GTI report recommended notification of DEP, installation of additional monitoring wells, analysis of utilities plans, and recovery of the floating petroleum product.



2.32 Rizzo Associates, Inc. Study

In December 1987, Rizzo completed a study for the Massachusetts Department of Public Works (DPW) related to the proposed I-93/Route 1 interchange. The study objectives included estimating the amount of hazardous and special wastes near the 1,000,000-gallon diesel oil tank and on the Boston Sand and Gravel Company property, east of the CRMF site.

Four monitoring wells installed around the diesel tank as part of the Rizzo study are shown as RIZ-1 through RIZ-4 on Figure 2. Soil and groundwater samples from these locations indicated the presence of gasoline or fuel oil, but no floating product was encountered. Base-neutral extractable laboratory analysis of a soil sample from RIZ-4 revealed the presence of approximately 14 compounds, ranging from 18.6 milligrams per kilogram (mg/kg) of benzo(b)fluoranthene to 0.36 mg/kg of acenaphthene. Both of these compounds are common components of diesel oil. Additional analyses detected no polychlorinated biphenyls (PCBs), pesticides, or acid-extractable compounds in this sample.

Some oil contamination was reportedly observed by Rizzo in the vicinity of the oil tanks and pump islands on the Boston Sand and Gravel Company property. A 4-inch floating layer of petroleum product was encountered in a well near one of the Boston Sand and Gravel Company pump islands.

The Rizzo report concluded that approximately 2,000 to 4,000 cubic yards of oil-contaminated soil may exist in the vicinity of the 1,000,000-gallon aboveground tank (which was removed after the field investigation for this Phase II study in 1990) on the CRMF site. This estimate was based on the assumption that soil directly beneath the tank floor was contaminated to a depth of 10 feet.

2.33 Kaselaan and D'Angelo Associates, Inc. Study

In January 1988, K&D completed an industrial hygiene study of the interior of the Power House. Samples of concrete, surface debris, water, sediment, and soil were analyzed for metals, PCBs, acid and base/neutral extractable compounds, and oil and grease.

Total metals results indicated that "all surface debris contained extensive amounts of heavy metals." The highest concentrations detected were 18,200 micrograms per gram ($\mu\text{g/g}$) of lead and 5,400 $\mu\text{g/g}$ of chromium in the bulk storage debris at the base of an anti-freeze/water tank. Extraction Procedure (EP) Toxicity results on the same samples indicated that, except for lead in the sample mentioned above, all concentrations were below EP Toxicity limits.



No PCBs were detected in one bulk soil sample and one bulk surface pad debris sample collected next to the transformers on the north side of the Power House. (Note the Power House was demolished and removed after the field investigation for this Phase II study in 1990.)

Results of acid and base/neutral extractable analysis of a bulk surface debris sample showed trace to low levels of seven polycyclic aromatics and bis(2-ethylhexyl) phthalate at the base of the boilers. The latter compound was also detected at 45 $\mu\text{g/g}$ in a concrete sample. K&D suggested that the phthalate compound may have been introduced as contamination from sample containers.

Oil and grease analysis of one sediment sample collected from the base of the compressors showed 22.5 percent oil and grease. K&D stated that this material "should be treated as a hazardous waste."

2.34 GZA Geotechnical Studies

Three geotechnical studies at the site have been completed by GZA for GFI. In January 1988, GZA completed a report (GZA File No. M-4850.1) on subsurface conditions in the vicinity of the new diesel fuel oil tanks. Four borings (B-1 through B-4) were performed during this study (see Figure 2). Three soil samples were screened for VOCs; results showed no VOCs above detection limits in two of the samples and a low level of an unknown compound in one sample. Two soil samples were screened by GZA for PCBs and pesticides. Results showed no PCBs or pesticides present above the method detection limits.

Observation wells were installed in three of the four borings (B-1 through B-3). Groundwater samples were obtained from wells B-1 and B-2. Results of chemical analyses showed no VOCs, except for methane in the B-1 sample. Conductivity and pH measurements of water samples showed results within the ranges typical for industrial areas.

In August 1988, GZA completed a Geotechnical Pilot Boring Study (GZA File No. M-4850.3) to evaluate subsurface conditions for construction of a new engine terminal. Seven borings and three test pits were completed during this study (see Figure 2). Observation wells were installed adjacent to five of the deep borings (GZ-101, GZ-103 through GZ-106). The deep borings were filled with grout to limit

vertical cross-contamination within the boring, and observation wells were installed in adjacent shallow borings. Limited chemical screening and analyses were performed as part of the Phase I study on soil and groundwater samples from these wells, borings and test pits. Results are included in this report.

In January 1990, GZA completed a Final Geotechnical Design Study (GZA File No. M-4850.4). Seventeen test borings and twelve monitoring wells were installed. In addition to providing geotechnical information, the wells were also located and designed to be used as part of this study. Boring logs and groundwater results from these explorations are included in this report.



2.35 GZA Phase I Study

In April 1989, GZA completed a Preliminary Site Assessment and Phase I - Limited Site Investigation report for GFI. The scope of work included a preliminary reconnaissance of the site; a review of available information on subsurface utilities; an inquiry into the past and present storage, use and disposal of hazardous materials and oils at the site; a review of the site history; the development of a site-specific Health and Safety Plan; a shallow soil gas survey; a subsurface exploration program; and the collection and laboratory analysis of soil and groundwater samples.

Contamination was detected at the site in soil, groundwater, and as separate-phase petroleum product. The major contaminant observed on the site appeared to be diesel/No. 2 fuel oil. Four areas of floating petroleum product were identified in this study. Observed product thicknesses exceeded 5 feet at wells MW-1 and GZ-24. Petroleum fingerprinting analysis of product and water samples identified heavily weathered No. 2 fuel oil in 13 of 18 samples. (Diesel fuel is virtually indistinguishable from No. 2 fuel oil by the fingerprinting analysis.) Two samples from the product plume northwest of the Diesel Shop showed a mixture of No. 2 fuel oil and lubricating oil. Metals analyses were also performed on petroleum product samples from several of the product plumes at the site. These metals analyses will be used during future studies to evaluate alternative remedial response measures.

Soil gas results showed benzene, toluene, and/or xylenes at various locations across the site. The highest concentrations were observed near the 25,000-gallon underground salvaged oil tank. Chlorinated solvents were detected primarily in the western portion of the site; the highest concentrations were also observed in the vicinity of the salvaged oil tank.

Screening of soil samples for VOCs showed petroleum distillates in 18 of 27 samples. Further laboratory analysis of six samples identified petroleum hydrocarbons, chlorinated VOCs, and/or phthalates. The results of metals analyses of EP Toxicity extracts from ten soil samples indicated metals concentrations below EPA and DEP criteria for characteristic hazardous waste.

Screening of groundwater samples for VOCs indicated petroleum distillates in 35 of 41 samples. Results of PCB screening analyses on six product samples were inconclusive due to interference from petroleum compounds. Metals concentrations measured in groundwater were generally at or below EPA MCLs. Groundwater samples from three wells exceeded MCLs for one or more metals.

The Phase I study concluded that migration of petroleum product and groundwater from the site may be significantly affected by site utilities such as storm drains. Possible destinations of storm drainage from the site include the Miller's River and Boston Harbor. Neither of these locations appears to be upstream of water supplies or well recharge areas. No food chain exposure pathways were identified other than ingestion of fish from Boston Harbor by recreational fishermen.

Site workers were identified as potential receptors in an exposure scenario involving direct contact with contaminated surface soil. Other pathways for exposure to contaminants from soils include volatilization/inhalation, and those associated with leaching to and transport with groundwater.

Based on a comparison of observed site conditions to DEP's imminent hazard criteria, GZA recommended that invert elevations of major storm drains be obtained, and the integrity of the 25,000-gallon underground salvaged oil tank be evaluated. Comparison of storm drain elevations to groundwater and product elevations was recommended to assess the role of storm drains in contaminant migration. Evaluation of the salvaged oil tank was recommended to evaluate its role as a source of groundwater contamination.

3.00 HAZARDOUS MATERIALS AND OIL

To obtain information concerning hazardous materials and oil at the CRMF site, GZA contacted employees of Amtrak as part of the Phase I Investigation. The following discussion is based only on the information provided to GZA by the Amtrak employees.

3.10 RAW MATERIALS USE AND STORAGE

This section summarizes information on the types and quantities of raw materials used at the site that could be classified as "hazardous materials or oils" (as defined in 310 CMR 40.020).

3.11 Present Use and Storage

Of the various hazardous materials and oil presently used at the site, diesel fuel oil is the most widely used. Diesel oil is delivered to the site in tank trucks and is currently stored in aboveground storage tanks (see Section 2.13). From the tanks, oil is distributed throughout the site through a network of fuel lines, which generally run underground (see Figure 4 and Section 2.10).



Three smaller tanks also store diesel fuel and are connected to the network of fuel lines. According to Amtrak personnel, an underground diesel fuel storage tank of an unknown capacity is adjacent and to the north of the heating plant in the Diesel Shop. In addition, an aboveground diesel fuel oil storage tank with an estimated capacity of 500 gallons is in the Budd House. An aboveground rail tank car adjacent to the northeast corner of the Engine House is used for heating fuel storage. The tank car has an estimated capacity of 5,000 gallons.

Two approximately 10,000-gallon tanks were discovered and removed in October 1989 during construction of the new diesel fuel storage tanks. One tank was reportedly used for fuel oil storage; the other was used for gasoline. The diesel tank was located near the new fuel tanks. The gasoline tank was located southwest of the Power House. Neither tank appeared on historical plans reviewed by GZA.

According to Amtrak personnel, the use of diesel fuel oil varies from approximately 70,000 gallons per week in summer to 100,000 gallons per week in winter. The extra diesel fuel used in the winter feeds boilers in the Engine House and Diesel Shop.

Other hazardous materials and oil at the site are used in the approximate quantities shown on Table 1. The quantities shown are either 1987 usage or 1988 usage as of early November, adjusted to yield an annual use estimate. Data on quantities of hazardous materials and oil were provided by Amtrak personnel. The diesel fuel oil estimate was calculated by assuming an average weekly use of 85,000 gallons.

According to Table 1, the second most abundant substance used at the site is locomotive crankcase oil. Virgin crankcase oil is stored in the diesel shop in a 15,000-gallon aboveground storage tank. The used crankcase oil is collected in another tank described in Section 3.21.

Material Safety Data Sheets (MSDSs) for substances in Table 1, obtained from the Amtrak Safety Department, are provided in Appendix C of the Phase I report.

3.12 Past Use and Storage

Prior to the appearance of diesel locomotives, trains were hauled by coal-fired steam locomotives. According to a 1929 B&M plan, a 2,000-ton coaling plant existed in Yard 5, approximately 50 feet east of the existing fuel platforms. The approximately 80-foot by 40-foot plant spanned four tracks and apparently served as a station for supplying coal to locomotives.

Five wash stands, approximately 300 feet west of the coaling plant, served the same four tracks as the coaling plant. The approximately 150-foot-long stands were supplied with water from two 200,000-gallon tanks, which were located between the Engine House and the present Budd House. The B&M plan also shows 1-inch air and 1-1/4-inch "cleaning oil" pipes running underground from the Engine House to the wash stands.

Detailed information on the past use and storage of oil and hazardous materials at the CRMF site could not be obtained from available sources. However, GZA did identify that "bunker oil" was formerly stored in an aboveground storage tank of unknown capacity near the present aboveground 100,000-gallon diesel fuel storage tank (see Figure 2). No information on the removal of this tank was available.

3.20 WASTE STORAGE AND DISPOSAL

This section presents information concerning the storage and disposal of waste materials associated with the site that could be classified as "hazardous materials or oils" (as defined in 310 CMR 40.020).

3.21 Present Waste Storage and Disposal

GZA identified three tanks on and near the site which appear to be used for storage of waste hazardous materials or oil prior to disposal. The largest of these is a 25,000-gallon underground tank located south of the Engine House machine shop (see Figure 2). This tank is registered with the Somerville Fire Department as a "salvaged oil tank". The age of the tank is unknown. The tank is currently scheduled for removal in 1990.

Used crankcase oil is stored in a 15,000-gallon aboveground tank in the Diesel House. This tank is reportedly emptied periodically by a selected waste contractor. Used oil filters are removed by Jet-Line Services, Inc. of Stoughton, Massachusetts.

In addition, other hazardous materials and oils, notably the cleaners listed in Table 1, may enter the site drainage system. As stated in Section 2.10, flow from the drainage system (including septic tank overflows) reportedly enters the oil/water separator on Guilford (formerly B&M) property. The separator, shown on Figure 2,

was built in approximately 1977 and is presently operated by Amtrak. Oil is periodically pumped from the separator to a 15,000-gallon aboveground storage tank, also on Guilford property, by an operator using a floating scavenger-type pump. The contents of the tank are reportedly removed by a waste disposal contractor.

3.22 Past Waste Storage and Disposal Procedures

Procedures formerly used for waste storage and disposal are largely unknown. Limited information was compiled from conversations with Amtrak and MBTA personnel and by reviewing old site plans.

B&M plans of the site show three cinder pits, each serving two tracks in Yard 5 between the coaling plant and the wash stands (see Section 3.12). According to Amtrak personnel, these pits were filled with water to cool the cinders dumped from locomotives. Amtrak personnel stated that the cinders were collected from the pits and sold to make cinder blocks. The coaling plant and cinder pits were filled around 1957, when the Budd House was constructed. Amtrak personnel recalled that the piers and slabs were left in place; however, according to a former B&M Railroad employee, the cinder pits were removed before the area was filled.

The B&M plans also show catch basins below the wash stands. These may have been used to collect run-off from the washing operations.

3.30 PAST RELEASES OF HAZARDOUS MATERIALS AND OIL

To obtain information on releases of oil and hazardous materials on or near the site, GZA contacted Amtrak and MBTA employees, the Somerville Fire and Health Departments, and reviewed records at the Northeast Regional Office of the Massachusetts Department of Environmental Protection (DEP), formerly the Massachusetts Department of Environmental Quality Engineering (DEQE).

3.31 CRMF Site

According to MBTA personnel, the floor of the former 1,000,000-gallon fuel oil storage tank was replaced around 1982. Four approximately 36-inch-diameter corrugated steel standpipes were placed around the tank and used to recover floating oil. Information on the quantity of recovered oil and the means of disposal was not available. These standpipes are still in place.

The available DEP Incident Response files indicated a release of 1,100 gallons of No. 2 oil in the Yard 5 area in October 1981. DEP files made available to GZA on November 9, 1988 yielded no further information on this incident.



A B&M letter in the DEP files describes a release of approximately 2,000 gallons of "No. 2 diesel oil" caused by a train derailment in Somerville in December 1983 (see Appendix D of the Phase I report). The letter does not state the exact location of the derailment, and no further information on this incident was available from DEP.

The U.S. Coast Guard reportedly investigated an oil spill from three transformers near the Power House in October 1986. According to the DEP files on the incident (see Appendix D of the Phase I report), less than 1-gallon of oil was spilled. Clean Harbors, Inc. (CHI) analyzed four soil samples for PCBs and found none above the detection limit of 5.0 milligrams per kilogram.

In January 1988, Rich Construction, Inc. cleaned and surveyed the catch basins along the drain line south of the Coach House. Flowing oil was observed in a pipe between two catch basins (shown on Figure 3). A pump truck of unknown capacity was used to remove the oil, but the level of oil in the drain could not be lowered enough to clean the catch basins. A representative of Rich Construction, Inc. recalled that the oil was coming through a drain pipe from the direction of the Coach House. Figure 3 shows a drain pipe extending under the Coach House, into the area west of the Diesel Shop, into the Diesel Shop oil room, and into the parking area in front of the site office building. Available information is incomplete regarding the destination of the drain.

On November 18, 1988, a spill of diesel fuel oil occurred in the Yard 5 area. The amount of spilled oil was estimated at 47,000 gallons by Amtrak personnel based on a Pump House meter reading. If the meter was not reset before pumping began on the November 18th, the amount of spilled oil may have been significantly overestimated. CHI removed approximately 20,000 gallons of oil from the site as of November 20. Additional oil was recovered following November 20, 1988. The majority of the oil appeared to be confined to the surface and the railroad track ballast; test pits dug by CHI showed subsurface soils to be largely uncontaminated by fresh oil.

To obtain information about fires that have occurred at the site, GZA contacted officials of the MBTA, Amtrak, and the Somerville Fire Department. In 1983, a fire destroyed the fuel oil Pump House. In the late 1960s, a natural gas explosion occurred in the vicinity of the 1,000,000-gallon tank. This explosion was reportedly caused by a contractor working on the site of the present Interstate Route 93 and MBTA Orange Line tracks. Records of other fires that may have occurred at the site were not made available to GZA at the times of our inquiries.

3.32 Surrounding Area

Releases of oil into the Miller's River have occurred on several occasions; some of these reportedly involved the B&M/Guilford oil/water separator. Available DEP Incident Response Files reviewed by GZA on November 9, 1988 showed that 20 gallons and 100 gallons of oil were released into the Miller's River in October and December of 1981, respectively. In both cases, B&M was listed in the DEP's files as the reporting or responsible party. No further information on either incident was available from the DEP.

According to DEP files, 300 to 500 gallons of No. 2 fuel oil were released in June 1982 from the B&M separator to the Miller's River during heavy rains. Most of the oil was reported to have been collected by booms placed in the river, and no oil was reported to have escaped to the Charles River.

In late May and early June 1984, 7,100 gallons of oil were vacuumed from the Miller's River following a period of heavy rains. A letter from B&M to DEP states that this oil came from the B&M separator. A copy of this letter is in Appendix D of the Phase I report.

Available DEP Incident Response Files indicate that in December 1980, 15,000 gallons of No. 2 oil and 1,000 gallons of No. 6 oil were released at the Prison Point pumping station, approximately 1/4-mile south of the eastern CRMF site boundary. No further information on this incident was available from DEP.

Boston Sand and Gravel Company, located to the east of the site, has been listed as a large quantity generator of hazardous waste (over 1,000 kilograms of hazardous wastes produced per month) since 1987. They are also listed as an National Pollutant Discharge Elimination System (NPDES) discharge permit holder in 1981. Boston Sand and Gravel Company reportedly also stores No. 2 fuel oil underground. Results from the Rizzo exploration program (discussed in Section 2.30) near the tanks and pumps showed some oil contamination and a 4-inch product layer in a well near a pump island.

4.00 FIELD STUDIES AND CHEMICAL ANALYSES

GZA conducted a field exploration program to build on the results of previous studies, to generate data necessary to perform a public health and environmental risk characterization, and to support the evaluation of remedial action alternatives. Each of the subsections below summarizes Phase I field studies and details the Phase II studies.



The Phase II exploration program consisted of a soil gas survey, four test borings, and four monitoring well installations. An additional 17 borings and 12 monitoring wells were installed as part of the GZA Final Geotechnical Design Report (January 1990, GZA File No. M-4850.4). Seven borings and four monitoring wells were completed on site in October 1989 as part of a Parsons-Brinckerhoff drain line study. Information from these explorations is included in this Phase II report. A program for collecting and analyzing soil, groundwater, and product samples, and assessing groundwater elevation and flow, was conducted using observation wells available from previous studies. The sampling and analysis program was designed to confirm important previous results and to fill in data gaps regarding the nature and extent of contamination at the site. An exploration location plan is included as Figure 2.

4.10 HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan (HASP) was developed by GZA prior to the initiation of field work. The HASP, intended to protect GZA site workers from the potential hazards posed by contaminants at the site, identified:

- Risks associated with various site operations
- Training required to perform work on site (e.g., OSHA-required Health and Safety Training and Railroad Safety Training)
- Protective clothing and equipment to be used by GZA personnel on the site
- Medical surveillance requirements
- Chemical hazards, including representative chemicals and their Threshold Limit Values (TLVs)
- Symptoms of exposure and potential health effects of site contaminants
- Physical hazards, including noise, fire, and electrical hazards
- Procedures for activity-specific site work, including contaminant action levels
- Emergency phone numbers for local ambulance, fire and police authorities
- Name, phone number, address and mapped route to the nearest hospital with emergency facilities

The HASP prepared on August 14, 1989 is presented in Appendix C.

4.20 SOIL GAS ASSESSMENT

GZA performed shallow soil gas surveys during both the Phase I and Phase II studies to assess the extent of soil contamination and, if possible, to infer the extent of free product and groundwater contamination. Figure 10 shows the location of soil gas sampling points.



The Phase I soil gas survey included 74 sampling points performed during two survey rounds. The first round included soil gas points SG-1 through SG-40A which were located across the site. Results of this survey were used as a screening tool to select test boring and monitoring well locations. The second round included soil gas points SG-40B through SG-73 which were located mainly in the area between the Engine House, Diesel Shop, and Coach House in the vicinity of an underground waste oil storage tank.

The Phase II soil gas survey included 21 sampling points. Soil gas sampling points SG-74 through SG-79 were located west of the Coach House along the Fitchburg Main Line. Soil gas sampling points SG-80 through SG-84 were located northwest of the two new 175,000-gallon fuel tanks, along the New Hampshire Main Line. These locations were selected to provide information on areas of the site not explored via soil gas surveys or monitoring wells during Phase I.

Soil gas sampling points SG-85 through SG-95 were located southwest of the Engine House in the vicinity of the underground waste oil storage tank. These locations were selected to confirm the presence and further assess the extent of chlorinated solvents which had been identified during Phase I. GZA also collected two air bag soil gas samples during Phase II for confirmatory GC/MS analysis.

A description of the soil gas survey methodology is included with the soil gas analysis results in Appendix D.

4.30 SUBSURFACE EXPLORATIONS AND MONITORING WELL INSTALLATION

Twenty-seven borings were performed and 24 monitoring wells were installed during the Phase I study. Four borings and monitoring wells (GZ-29 through GZ-33) were installed during the Phase II study. In addition, new wells installed as part of the GZA geotechnical study, the Parsons-Brinckerhoff drain line study, and previous studies have been incorporated into the Phase II report. Figure 2 shows the locations of wells at the site.

The Phase II wells installed by GZA consisted of 10 feet of 1.5-inch-diameter PVC wellscreen (with a 0.01-inch slot size) attached to threaded, flush-joint solid PVC riser. All PVC attachments were completed without the use of solvents or glues to avoid

contamination. The wellscreen was set to span the free product and water table encountered during drilling. A filter of clean silica sand was placed in the annular space around the wellscreen, and a bentonite clay seal was placed above this filter sand. Each well was completed with a protective at-grade road box, staked, and flagged. Boring logs including well installation details are presented in Appendix E.

Seventeen borings (GZ-201 through GZ-218, excluding GZ-203) were completed as part of the GZA Geotechnical Final Design Study (January 1990). Borings were typically advanced 10 feet into bedrock. Boring locations were selected based on both geotechnical and environmental considerations. Shallow monitoring wells with 1.5-inch PVC wellscreens spanning the water table were installed in augured holes adjacent to 12 of the borings (GZ-204 through GZ-213, GZ-217, and GZ-218). Deep observation wells were also installed adjacent to the GZ-207 and GZ-208 boring locations.

Seven on-site borings south of the Fitchburg Main Line (SD-3 through SD-9) were completed in September-October 1989 as part of the Parsons-Brinckerhoff drain line study. Monitoring wells were installed in four of these borings (SD-3, SD-5, SD-7, SD-9). Five-foot wellscreens were set beneath the water table in these wells; the wells may therefore be used for groundwater sampling and groundwater elevation measurements, but not for delineation of floating product.

Boring logs for the GZ-200 series wells and the SD series wells are included in Appendix E.

4.40 WELLPOINT PERMEABILITY TESTING

GZA performed rising head and/or constant head permeability tests in a total of 19 wells at the site. Results of these tests are presented in Table 2. Raw data from the tests is included in Appendix F.

The groundwater depth and total well depth were measured in each well prior to the start of the test using an electric water level indicator. Subsequent water level measurements were made using either a Geokon Model 45000 closed-diaphragm pressure transducer attached to a digital readout box, or using the electric water level indicator.

For the rising head tests, the wells were purged using a centrifugal pump until the water level was sufficiently depressed. The recharge of the wells was then monitored until water levels approached static levels. GZA analyzed the test data by the Bouwer and Rice (1976) method.

For the constant head tests, the wells were pumped using a centrifugal pump until the drawdowns and discharge rates were stable. Discharge rates were measured using a

calibrated bucket and a digital stopwatch. GZA analyzed the test data by the Hvorslev (1951) method.

4.50 SOIL SAMPLING

4.51 Subsurface Soil Samples

GZA obtained split spoon soil samples in borings GZ-29 through GZ-33 by Standard Penetration Tests at 5-foot-intervals during the Phase II study. A portion of each soil sample was collected in a pre-cleaned 8-ounce glass jar, stored in an ice-packed cooler, and transported to our Environmental Chemistry Laboratory (ECL) the day they were collected for chemical screening. Samples were kept cool until analyzed, within the specified holding times set forth in the methods of each analysis.

The soil samples were screened for total VOCs in the laboratory using an H-Nu Model PI-101 PID with a 10.2 electron-volt lamp. The PID measures the relative levels of VOCs in the headspace of the sealed jars referenced to a benzene standard. Although H-Nu screening cannot be directly used to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator of the levels of VOCs in each sample. H-Nu results and a description of our PID screening procedure is included in Appendix G.

GZA performed additional chemical screening by static headspace gas chromatographic (GC) techniques on four soil samples exhibiting elevated H-Nu readings. The GC screening analysis permits the tentative identification and approximate quantification of individual VOCs.

GZA also screened the two soil samples with the highest H-Nu responses (GZ-31, 5 to 7 feet; GZ-33, 10 to 12 feet) for VOCs (EPA Method 8240), semi-VOCs (EPA Method 8270), PCBs, and RCRA Metals. Laboratory data sheets and descriptions of the analytical methods used are included in Appendix H.

4.52 Surface Soil Samples

GZA collected 15 surface samples (SS-1 through SS-15) from locations across the site representing a range of surface soil and ballast conditions. The samples included 12 soil samples and three ballast samples. Eight of the samples appeared stained or oily; seven of the samples appeared unstained. Samples were collected with a clean trowel, preserved in pre-cleaned 8-ounce glass jars, and transported on ice to GZA's ECL for analysis. The surface soil sampling locations are shown on Figure 5.

All of the samples were analyzed for total petroleum hydrocarbons (TPH) by GC. One heavily-stained soil sample (SS-9), one unstained soil sample (SS-7), and two stained ballast samples (SS-6, SS-14) were screened for PCBs. Heavily-stained soil and

ballast samples (SS-9 and SS-6, respectively) were analyzed for VOCs (EPA Method 8240), semi-VOCs (EPA Method 8270) and lead. Laboratory reports are included in Appendix H.

4.60 GROUNDWATER AND PRODUCT SAMPLING

During the Phase I and Phase II studies, 45 groundwater samples were analyzed for VOCs (by GC screening), six groundwater samples were analyzed for purgeable halocarbons (EPA Method 601), three samples were analyzed for VOCs and base/neutral extractables (EPA Methods 624 and 625), 31 samples were analyzed for Total Petroleum Hydrocarbons (TPH), three samples were analyzed for petroleum hydrocarbon (PHC) fingerprinting, and 11 groundwater samples were analyzed for metals.

The following analyses were performed on petroleum product samples: 23 product samples were analyzed by PHC fingerprinting, nine samples were analyzed for PCBs, 15 samples were analyzed for metals, and two samples were analyzed for chlorides, bulk solids and water, cetane rating, energy (BTU), and viscosity.

Sampling locations and analyses were chosen to assess the nature and extent of contaminants present across the site; to support the public health and environmental risk assessment; and to support proposed oil recovery/groundwater remediation efforts. The Phase II sampling locations and analyses were selected to fill in data gaps from the Phase I and previous studies in order to fulfill MCP requirements.

Groundwater samples were collected using stainless-steel bailers with teflon ball check valves. A separate (i.e., one per well) pre-cleaned bailer was used for each well to avoid cross-contamination. At least three times the initial volume of the well was evacuated to remove stagnant water, and the wells were allowed to recharge before sampling.

Samples for pH analysis and specific conductance were collected in pre-cleaned 8-ounce glass jars. Samples for VOC screening were collected in pre-cleaned 40-ml vials with Teflon septa caps. One-liter pre-cleaned amber jars were used for both TPH and PHC fingerprint samples. One-liter plastic containers were used for metals samples. All samples were kept cool after collection, during transport and until analyses were performed.

4.70 GROUNDWATER ELEVATION MEASUREMENTS

Groundwater and product depths in monitoring wells were measured at available monitoring wells on April 5, 1990. Measurements were made using an ORS Interface Probe, which is capable of measuring product layers of 0.01 feet or more. For wells where floating product was encountered, GZA corrected water table depths to account

for the density difference between water and petroleum. Based on the assumption that diesel fuel was the major contaminant, a specific gravity of 0.87 was used for product. A listing of historical groundwater measurements during the Phase I and Phase II studies is presented in Table 3.

Elevations of monitoring well measuring points (i.e., top of the PVC pipe) were determined by ASEC Corporation of Boston, Massachusetts, under contract to GFI. Prior to the survey, GZA assisted ASEC in locating and identifying each of the wells. Elevations estimated by ASEC are referenced to the National Geodetic Vertical Datum (NGVD) of 1929. The corrected water table depths were subtracted from the well elevations provided by ASEC to yield corrected water table elevations.

A groundwater contour plan (Figure 6) was developed using the elevation data set. The contour plan is discussed in detail in Section 5.30.

4.80 QUALITY ASSURANCE/QUALITY CONTROL

Throughout this study, quality assurance/quality control measures were followed in the field, in the laboratory, and in evaluating data and preparing this report. These QA/QC measures are presented in Appendix I.

5.00 GEOHYDROLOGIC CONDITIONS

The CRMF site is located between the Charles and Mystic Rivers, approximately 3/4-mile to the north and south of each river, respectively. Boston Harbor and the Charles River Dam are approximately 1 mile to the southeast of the site.

The site formerly was a tidal marsh drained by the Miller's River, which flowed across the southwestern portion of the site to the Charles River. The tidal marsh was filled in approximately 1880, and portions of the Miller's River were eventually contained in an underground culvert. The Miller's River culvert presently empties to the Miller's River outlet, approximately 1/3 mile south of the CRMF site.

5.10 SITE GEOLOGY

GZA obtained site geologic data by reviewing geologic maps and previous literature on the site area, boring logs from previous studies of the site, and soil samples from our recent boring programs.

The borings from the Phase I and Phase II studies were advanced to a maximum depth of 22 feet. Borings from our geotechnical studies were advanced into deeper strata. Boring logs are presented in Appendix E. Subsurface information from GZA's

geotechnical and environmental studies is presented together on the profiles attached as Figures 7, 8, and 9.

The following sections present information on the primary strata encountered at the site.

5.11 Soil

Generally, the site geology is characterized by fill overlying pleistocene alluvial and marine deposits, overlying pleistocene glacial till deposits, overlying bedrock. Organic silt and peat were also encountered occasionally immediately beneath the fill.

Fill

Miscellaneous granular fill, which ranged in thickness from approximately 3.5 to 17 feet, was encountered in all borings. The fill was primarily very loose to dense granular fill, and loose to dense cinder fill. The granular fill typically consisted of fine to coarse sand, with up to 50 percent silt and/or gravel and up to 20 percent cinders, concrete, brick, and wood. The cinder fill was typically sand- and gravel-sized cinders with up to 20 percent silt and/or sand.

Organics

Below the fill, 2 to 8.5 feet of organic silt and peat was encountered in borings GZ-1, GZ-2, GZ-12, GZ-13, GZ-14, and GZ-27. Borings for GZA's geotechnical studies encountered organics in borings B-1, B-2, B-3, B-4; GZ-104, GZ-105, GZ-106; GZ-201, GZ-202, GZ-204 to GZ-211, and GZ-214 to GZ-217. The organics were generally less than 8.5 feet thick except at GZ-104 where the thickness was 13.5 feet. The organics stratum was primarily very soft to soft organic silt and/or fibrous or fine grained peat, with up to 30 percent sand and up to 10 percent shells and root fibers.

Stratified Sand and Silt

Stratified sand and silt were encountered in 20 of the 30 borings drilled during GZA's environmental studies and in 8 of the 28 borings drilled during our geotechnical studies. The sand and silt stratum ranged in thickness between 0.6 and 18.5 feet.

The stratified sand and silt stratum was primarily loose to dense, fine, fine to medium, or fine to coarse sand and up to 50 percent silt and up to 20 percent gravel, stratified with non-plastic to moderately plastic silt with up to 50 percent fine

sand. Pockets of fine to coarse sand with 20 to 50 percent gravel and less than 10 percent silt were also encountered in some areas.

Silty Clay

Silty clay was encountered in 8 of the 30 borings completed for GZA's environmental studies, and in all of our deep geotechnical borings, which extended through the fill, organics, and/or sand and silt strata. Clay thicknesses ranged from 9.5 feet (GZ-209) to 41.5 feet (B-4). It appears the clay is thinnest in the east-central portion of the site, in the area of the existing Engine House, and thicker to the north, south, and west.

The clay stratum was primarily soft to very stiff, silty clay with occasional thin (1/16- to 1/2-inch) partings of fine sand and silt. The clay was generally stiffest at the top and became softer with depth.

Glacial Till

Glacial till was encountered in 17 borings on the site, ranging in thickness from 2 feet to 24.5 feet. The till consisted of very dense, fine to coarse sand in a matrix of clay and silt with up to 30 percent gravel. Weathered argillite boulders were also encountered in the till stratum at several locations.

5.12 Bedrock

No bedrock outcrop was observed at the site; according to a 1970 map entitled "Preliminary Map of Bedrock Surface Under Parts of Boston, Cambridge and Brookline, Massachusetts," the nearest outcrop is approximately 1 mile to the northwest of the CRMF site. According to the 1983 U.S.G.S. Bedrock Geologic Map of Massachusetts, the Cambridge Argillite is the underlying bedrock. In addition, a large bedrock fault is shown in the area of the site.

Boring logs from GZA's geotechnical studies confirmed that the underlying bedrock is the Cambridge Argillite. The argillite bedrock was encountered at depths of 28 to 75 feet below ground surface and was noted to be "severely weathered". The observed Rock Quality Designations (RQDs), which are used to evaluate the soundness of rock cores, were classified as "very poor." Borings for the present study focused on evaluating the nature and areal extent of oil contamination, and thus were not advanced to bedrock.

5.20 HYDRAULIC PROPERTIES

GZA performed wellpoint permeability tests in 19 wells at the site during the Phase II study to estimate the hydraulic conductivity (K) and transmissivity (T) of the

subsurface materials. These parameters are needed to assess potential contaminant migration from the site and to evaluate potential remedial alternatives.

Hydraulic conductivity (also referred to as permeability) is a measure of the ease with which water moves through a porous medium. Computed hydraulic conductivity values at the site range from 0.7 to 780 feet/day (per foot of hydraulic driving head). The wide range of hydraulic conductivity values reflects both the heterogeneous nature of the fill underlying the site and the uncertainty inherent in wellpoint permeability tests. Given ideal conditions these tests are generally considered accurate to one order of magnitude (factor of 10). The potential presence of leaky drain lines and unknown subsurface structures at the site may substantially bias the hydraulic conductivity estimates.

Transmissivity is a measure of the ease with which water flows through a unit width of an aquifer. Transmissivity is calculated by multiplying the hydraulic conductivity of a particular stratum by its saturated thickness. Transmissivities calculated for the site range from 5.0 to 7020 sq.ft/day.

5.30 GROUNDWATER FLOW

Groundwater depths were measured on April 5, 1990 and on nine other dates. Observed groundwater depths, shown on Table 3, ranged from 1.1 to 13.3 feet below ground surface. The fill stratum is the primary water bearing unit; the silty clay stratum is semi-impervious, inhibits flow, and may hydraulically isolate the underlying till and rock strata.

A groundwater contour plan, constructed from water level measurements taken on April 5, 1990, is attached as Figure 6. This plan reflects high water table conditions resulting from spring snow melt and heavy rains. A groundwater contour plan constructed from water level measurements taken on October 13, 1988 is attached as Figure 6A. This plan, which may be more representative of average groundwater conditions at the site, was presented and discussed in the Phase I Report. Groundwater contours constructed from water level measurements taken on other dates are generally consistent with these plans. Local groundwater flow direction is highly variable across the site; however, regional flow appears to be primarily to the east/southeast, towards the Miller's River and Boston Inner Harbor.

Prominent features of the groundwater contour plan (Figure 6) include local highs near the former 1,000,000-gallon fuel tank, east of the Diesel Shop, and in the vicinity of the Engine House; and local lows southwest of the Budd House, southeast of the Budd House, northwest of the former 1,000,000-gallon fuel tank near Interstate 93, and near the oil/water separator. In general, groundwater highs may be caused by water sources such as leaky water mains, septic tanks, or drainage lines, or surface discharges of wastewater or ponding of surface runoff. Buried structures or local changes in soil

permeability and thickness may also cause local changes in the groundwater table. Groundwater lows, or "sinks", may be caused by features such as leaky drain lines, pumping wells or pumped sumps, or areas of high aquifer transmissivity.

Records indicate that 60,000 gallons of city water per day are used at the CRMF site. The quantity of water that infiltrates to groundwater due to leaky water lines, drain lines, septic systems, and surface discharges is not known, but may be significant.

The water table high near the Engine House may be due to a surface discharge, leaky drain lines, or both. GZA personnel have consistently measured high water levels in this area. According to an Amtrak employee, an approximately 3/4-inch-diameter hose in the northern portion of the Engine House flows 24 hours a day when the Engine House boilers are operating, discharging directly to the ground surface. GZA observed water flowing from a hose in this area on several dates. We also observed flowing water on several occasions (including summer months) in a shallow catch basin near well GZ-3; upstream catchbasins were observed to show little or no flow. It is possible that these flows are unrelated, because the boilers are not usually operated during the summer months. Either or both of these potential sources may contribute to the water table high near the Engine House.

GZA personnel have observed the water table high east of the Diesel Shop on several dates. No distinct source has been identified, though there are buried water and drain lines in the area. The water table high near the site of the former 1,000,000-gallon fuel tank may be a transient feature caused by storm runoff. There are storm drains in the area which may carry large flows from Interstate 93 and the Gilmore Bridge. GZA personnel have also observed surface water ponding in this area after heavy rains.

The water table depression in the center of the site, defined by the elevation "6-foot" contour in the Groundwater Contour Plan, Figure 6, has been observed consistently in water level measurement rounds. The depression may be caused by leaky drain lines in the area with inverts below the water table, by increased aquifer transmissivity in the area, or both. The greatest thicknesses of floating product at the site have been detected in this area; it is likely that the depression has acted as a trough for the accumulation of floating oil.

The water table depression southeast of the Budd House (near GZ-10) may be due to the box culvert drain which runs through this area. The depression near the oil/water separator may be due to pumping from the box culvert to the separator. GZ-24, located in this area, has consistently shown the lowest water table elevation at the site. Water table elevations below mean sea level which have been observed at GZ-24 indicate pumping in the area. The water table low located northwest of the 1,000,000-gallon fuel tank near GZ-32 may reflect regional water table conditions.

Regional groundwater flow in the area is likely directed southeast toward Boston Inner Harbor.

Observed water table gradients varied across the site from 0.04 ft/ft to 0.002 ft/ft. The steepest gradients were observed near the water table high in the vicinity of the Engine House. Flatter gradients were observed in the central and western portions of the site. Since the site was formerly a tidal marsh, the natural gradient was probably relatively flat. This supports the hypothesis that utilities on the filled-in site probably control present-day groundwater flow.



GZA does not expect the tides of Boston Harbor to affect the site groundwater since the site is approximately 1 mile from the Charles River Dam.

6.00 ANALYTICAL RESULTS AND DATA EVALUATION

Contaminants were detected at the site in four forms: (1) contaminants within the soil gas, (2) contaminants adsorbed to soil, (3) organics dissolved in groundwater, and (4) free-phase petroleum product.

6.10 SOIL GAS RESULTS

Figure 10 shows the locations of soil gas points SG-1 through SG-73 from the Phase I study, and soil gas points SG-74 through SG-95 from the Phase II study. Results of soil gas analyses are summarized on Table 4; Phase II results and analysis procedures are included in Appendix D. Figure 11 summarizes soil gas results for benzene, toluene, and xylene (BTX), compounds found in petroleum products such as gasoline and fuel/diesel oil. Figure 12 summarizes soil gas results for chlorinated VOCs.

Phase II soil gas sampling transects were located west of the Coach House (SG-74 through SG-79) and north of the Engine House (SG-80 through SG-84) in areas where no soil gas data or groundwater monitoring wells were available. Additional soil gas points (SG-85 through SG-95), intended to verify results of the Phase I soil gas survey, were located south of the Engine House near an underground salvaged oil tank and an underground sump.

Along the transect west of the Coach House along the Fitchburg Main Line, results showed chlorinated VOCs in two of the six samples (SG-77 and SG-78) and BTXs in four of the six samples (SG-74, SG-75, SG-77 and SG-79). The maximum total chlorinated VOC concentration was 1.4 $\mu\text{g/liter}$ in SG-77; the maximum total BTX concentration was 31.8 $\mu\text{g/liter}$ in SG-74. These relatively low, discontinuous concentrations of contaminants may be due to either isolated areas of shallow soil contamination, or groundwater contamination.

No analytes were detected in four of the five soil gas samples (SG-80, SG-82 through SG-84) located north of the Engine House along the New Hampshire Main Line. Trace levels of chlorinated VOCs were detected in SG-81. This area appears to be relatively free of contamination.

In the area south of the Engine House, results showed chlorinated VOCs in six of the 11 samples (SG-85 through SG-88, SG-92, SG-95), and BTXs in seven of the 11 samples (SG-85 through SG-88, SG-92, SG-93, SG-95). The maximum total chlorinated VOC concentration was 67.8 $\mu\text{g/liter}$ in SG-88; the maximum total BTX concentration was 116.7 $\mu\text{g/liter}$ in SG-93. The nearby underground sump and underground salvaged oil tank are possible sources of this contamination.

6.20 CHEMICAL RESULTS - SOIL SAMPLES

6.21 Surface Soil Samples

Results of the surface soil analyses from the Phase II study are summarized in Table 5 and Figure 5. Laboratory reports are presented in Appendix H. The 15 surface soil and ballast samples analyzed (by GC) contained petroleum hydrocarbons. Concentrations ranged from 37 to 33,000 ppm.

Two of the 15 samples were selected based on visual inspection for apparent contamination (SS-6 and SS-9) and were analyzed for VOCs (EPA Method 8240), semi-VOCs (EPA Method 8270), and lead. No VOCs were detected in SS-6. Acetone (900 ppb), PCE (98 ppb), and 1,1,1-TCA (21 ppb) were detected in SS-9. These compounds are all common solvents. Eight individual semi-VOCs, including polycyclic aromatic hydrocarbons (PAHs) and phthalates, were detected in SS-6 with a total concentration of 765 ppm; fluoranthene (<25 ppm) and bis(2-ethylhexyl) phthalate (128 ppm) were detected in SS-9. PAHs are components of fuel oil and are hydrocarbon combustion byproducts. Phthalates are widely used as plasticizers.

Lead was detected in both SS-6 (188 ppm) and SS-9 (238 ppm). According to the EPA, typical urban background lead concentrations in soils range from 150-300 ppm. The Massachusetts action level for cleanup of lead-contaminated soils is 500 ppm. Lead concentrations measured in SS-6 and SS-9 are within normal background levels.

Four samples (SS-6, SS-7, SS-9, and SS-14) were screened for PCBs. Results indicated Aroclor 1248 (1,000 ppb) in SS-14 and Aroclor 1254 (trace) in SS-6. PCBs are widely used in transformers on trains and are often detected in track ballast and in railyards. No PCBs were detected in the other samples analyzed.

Six surface soil samples were collected and analyzed for herbicides as part of the Phase I study. The samples were chosen to provide broad coverage of the site and to



represent areas that appeared to be free of plant growth. The analyses showed no 2,4-D or silvex. These are the herbicides typically studied as part of RCRA hazardous waste testing.

6.22 Subsurface Soil Samples

GZA personnel collected subsurface soil samples at 5-foot intervals in test borings during the Phase I and Phase II studies. The samples were screened for VOCs using an H-Nu photoionization detector (see Section 4.51). Selected samples were preserved for further analyses as described below. Laboratory reports for the Phase II subsurface soil analyses are presented in Appendices G and H.

H-Nu Screening

Sixteen subsurface soil samples were screened for VOCs using an H-Nu during the Phase II study. Results, summarized in Table 6, indicated total organic vapor concentrations ranging from 0.2 to 46 ppm. The four samples with the highest H-Nu responses (GZ-31, 5 to 7 feet and 10 to 12 feet; GZ-33, 5 to 7 feet and 10 to 12 feet) were selected for further analyses.

GC Screening

Twenty-seven subsurface soil samples were screened for VOCs by GC during the Phase I study and four subsurface soil samples were screened during the Phase II study.

GC screening results, summarized in Table 7, indicated the presence of a petroleum distillate such as fuel oil in 22 of the 31 samples analyzed. The complex chromatograms resulting from petroleum distillates interfered with the identification of compounds by GC screening; thus, compounds listed as not detected in the laboratory reports could have been present in samples containing petroleum distillates.

Toluene, identified in two samples, is a component of gasoline and fuel oils. A sample from GZ-24 (near the oil/water separator) contained o-xylene and acetone in addition to toluene. Xylene is a component of gasoline and fuel oils; acetone is a common solvent. A sample from TP-3 (along a south wall of the Engine House) contained 1,1,2-trifluoro-1,2,2-trichloroethane (Freon-113), a cleaning/degreasing solvent.

EPA Methods 8240 and 8270

Of the 31 soil samples analyzed by GC VOC screening during the Phase I and Phase II studies, eight were selected for further VOC analysis by EPA Method 8240. Six samples were also analyzed for semi-volatile compounds by EPA

Method 8270. Samples for these analyses were selected to provide further information on samples for which GC screening identified many unknowns and to provide broad coverage of the site.

Results of these analyses are presented in Table 8. Diesel fuel components were identified, including benzene, toluene, ethylbenzene, xylenes, naphthalene, pyrene, acenaphthene, and benzo(a)anthracene. Nitrobenzene, identified in a soil sample from GZ-21 (north of the site office), is used in refining lubricating oils and as a component of metal polishes. Acetone was also detected.

Phthalates, identified in two samples, are widely-used plasticizers found throughout the environment, and are frequently found in samples as a result of laboratory contamination from plastic containers. Carbon disulfide, detected in GZ-28 (between the Budd House and the N.H. Main Line), is found in small amounts in crude oil, is a by-product of coal combustion, and may also be used as a solvent.

The greatest number of chlorinated VOCs (approximately seven) was observed in GZ-28; the most widely detected compound was trichloroethene (TCE), observed in five of the eight samples. The highest reported chlorinated VOC concentration was 0.6 mg/kg of TCE at GZ-28. Chloroform, also detected at GZ-28, is used as a solvent and a cleansing agent, but also is a byproduct from chlorinating drinking water.

PCB Screening

Two subsurface soil samples (GZ-31, 10 to 12 feet; GZ-33, 5 to 7 feet) were screened for PCBs during the Phase II study. No PCBs were detected in either of the samples.

Metals Analysis

Ten subsurface soil samples were analyzed to assess the leachable concentration of the eight RCRA (Resource Conservation and Recovery Act) metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) via extraction by the EP Toxicity procedure during the Phase I study. Results, shown in Table 9, showed barium in all samples. Barium concentrations ranged up to 0.133 ppm, well below the EPA's EP Toxicity criterion of 100 ppm. No other RCRA metals were detected in the extracts.

Two subsurface soil samples were analyzed for total metals (i.e., in bulk) for the eight RCRA metals during the Phase II Study. These metals are commonly present in natural soils. The metals concentrations were compared to mean naturally occurring metals concentrations for soils in the eastern United States (Shacklette and Boerngen, 1984, USGS Prof. Paper 1270). For both samples, metals concentrations

were within two standard deviations (95 percent probability) of the mean value, except for selenium.

6.30 CHEMICAL RESULTS - GROUNDWATER AND PRODUCT SAMPLES

Groundwater and product samples were collected across the site for chemical analyses as part of the Phase I and Phase II studies. Results of the analyses are described below. Laboratory reports containing details of the Phase II analyses are presented in Appendices J and K.

6.31 pH/Conductivity Screening

Thirty-eight groundwater samples were screened for pH and conductivity during the Phase I study, and seventeen groundwater samples were screened during the Phase II study. Results (Table 10) showed pH values generally between 6.0 and 7.0, a normal range for groundwater. pH values slightly higher and lower than the normal range were observed in GZ-30 (pH of 5.0) and GZ-204 (pH of 8.0).

Measured conductivities ranged from 265 to 2,620 microsiemens per centimeter ($\mu\text{s}/\text{cm}$). Conductivity values serve as a general indicator of dissolved ions in water; values above approximately 500 $\mu\text{s}/\text{cm}$ in industrialized areas, such as the CRMF, are considered elevated. Elevated values could indicate the presence of ions such as sodium, calcium and chlorides. Road salting in urban areas is a common source of these constituents. Measured conductivities for 35 of the 43 samples screened were above 500 $\mu\text{s}/\text{cm}$; 11 samples had measured conductivities above 1,000 $\mu\text{s}/\text{cm}$.

Three product samples had measured pH values ranging from 7.0 to 7.4. Conductivity analyses were not performed on these samples because of the possibility of damaging the conductivity probe.

6.32 GC VOC Screening

Forty-one groundwater samples were screened by GC for VOCs during the Phase I study and four groundwater samples were screened during the Phase II study. GC VOC screening results are summarized in Table 11. Results from all but 11 of the 41 samples indicated unknown compounds; the pattern of these unknowns suggested the presence of petroleum distillates. Compounds commonly found in fuel oil (e.g., toluene, ethylbenzene, and xylenes) were identified in five of the samples that contained petroleum distillates. The eleven samples where distillates were not detected were from wells east of the site of the former 1,000,000-gallon tank (RIZ-1), inside the circle formed by the Engine House (GZ-1, GZ-2, and GZ-3), east of the Power House (GZ-11 and GZ-105), north of the Budd House and adjacent to Interstate 93 (GZ-13, GZ-30, GZ-31, GZ-32), and in the MBTA Storage Yard (GZ-104).

In addition to petroleum distillates, chlorinated VOCs were detected in three samples taken from wells southwest of the Engine House during the Phase I study. A sample collected from GZ-14 indicated traces of 1,1,1-trichloroethane (TCA) and 1,1-dichloroethane (1,1-DCA); results for two samples from TP-3 each showed approximately 2 ppm of 1,1,2-trifluoro-1,2,2-trichloroethane (Freon-113), corroborating results obtained in the soil sample from TP-3.



6.33 EPA Method 601/624/625 Analyses

Six groundwater samples were analyzed by EPA Method 601 and three groundwater samples were analyzed by EPA Methods 624 and 625 during the Phase II study. These methods can provide more sensitive measurement and more accurate identification of organic compounds than GC methods. Results of these analyses are summarized in Table 12.

GZA collected samples for EPA Method 601 analysis from six wells (GZ-14, GZ-16, GZ-212, MW-7, MW-9, and SD-5) located southwest of the Engine House, in the vicinity of the underground salvaged oil tank and the underground sump. Chlorinated VOCs had been detected in this area in both groundwater and in soil gas. Further information on the nature and extent of the chlorinated VOCs was required for the Phase II study. Chlorinated VOCs were detected in three of the six samples (GZ-14, MW-7, MW-9). The maximum total chlorinated VOC concentration detected was 123 ppb in MW-9.

GZA collected groundwater samples for EPA Method 624 and 625 analyses (priority pollutant VOC and semi-VOC analyses, respectively) from wells GZ-211, GZ-218, and MW-9. These wells were chosen to represent the major floating product plume areas. Although the floating product may be continuous between GZ-218 and MW-9, results of PHC fingerprinting analyses of product samples collected from the MW-9 area indicate that the floating product in this area contains lubricating oil in addition to diesel oil. Results of the EPA Method 624 analyses indicated the presence of VOCs in wells GZ-211 (53 ppb) and MW-9 (47.4 ppb). No VOCs were detected in GZ-218. Results of the EPA Method 625 analyses indicated the presence of 2-methylnaphthalene in each of the samples as follows: GZ-211 (180 ppb), GZ-218 (34 ppb), and MW-9 (45 ppb).

6.34 PCB/Pesticide Screening

Six product samples (GZ-4 through GZ-7, MW-8 and MW-9) were screened for PCBs and pesticides during the Phase I study and three product samples (GZ-7, GZ-210, MW-9) were screened during the Phase II study (see Appendix K). PCBs often occur in waste oil. Results of the Phase I analyses indicated that no pesticides or PCBs were present in the samples, however, petroleum distillates interfered with the detection of PCBs. Phase II results indicated PCBs in all three of the product

samples that were analyzed ranging from 2.0 to 4.2 ppm. Typically, oil may be recycled if PCB concentrations are less than 50 ppm.

6.35 Petroleum Hydrocarbon (PHC) Analyses

Total Petroleum Hydrocarbon (TPH) Analyses

Results of TPH analyses on groundwater samples are presented in Table 13. Twenty groundwater samples were analyzed for TPH during the Phase I study by EPA Method 418.1. This method uses an infrared (IR) spectrophotometer to quantify total PHCs in a sample. Samples selected for this analysis were taken from wells where no floating product was observed. Results, summarized on Table 13, indicated PHCs in the samples collected northwest of the Diesel Shop (300 mg/l at MW-7), and north and south of the 100,000-gallon fuel tank (24 mg/l at MW-15 and 3.8 mg/l at GZ-18A, respectively). No PHCs were detected above the detection limit of 0.5 mg/l in the remaining 17 samples analyzed by the IR method.

This result is consistent with Phase I GC screening results of groundwater samples from RIZ-1, and GZ-1, GZ-2, GZ-3, GZ-11, GZ-13, GZ-14, GZ-104, and GZ-105; however, screening results from the remaining eight samples showed petroleum distillates. This inconsistency may have been caused by the generally lower detection limits of the GC screening method (e.g., 0.005 mg/l for xylenes), or by the sample preparation for the IR method, which causes some loss of VOCs.

Eleven groundwater samples were analyzed for TPH by GC during the Phase II study. Samples selected for this analysis were collected from the four new monitoring wells and from seven wells located across the site where no Phase I TPH data existed. Results showed TPH in 10 of the 11 wells, in concentrations ranging from 0.50 ppm (the detection limit) to 160 ppm.

Petroleum Fingerprinting Analyses

Results of petroleum fingerprinting analyses are presented in Table 14. Eighteen groundwater and product samples were analyzed during the Phase I study by the TPH (GC) "fingerprinting" method. This method can be used to identify and quantify various petroleum products. However, No. 2 fuel oil and diesel oil are virtually indistinguishable by this analysis. Analytical results are routinely reported as "No. 2 fuel oil," but may be either No. 2 fuel oil or diesel oil. Samples were selected for fingerprinting analysis at most locations where floating product was observed; also, samples were selected from four wells (GZ-103, GZ-16, GZ-19 and GZ-22) without floating product to better assess the distribution of dissolved oil contamination.

Results of the Phase I analyses indicated the presence of heavily weathered No. 2 fuel oil in 13 of the 18 groundwater and product samples and slightly



or moderately weathered No. 2 fuel oil in two of the samples. A mixture of No. 2 fuel oil and lubricating oil was reported in two groundwater samples collected from locations west of the Diesel Shop (MW-9 and TP-3). The identification of lubricating oil in this area, along with the soil gas results at SG-35 and SG-36, which showed no contamination, suggested that the plume west of the Diesel Shop was separate from the Yard 5 product plume. Phase II results, discussed in Section 6.40, indicate that there may now be a continuous floating product plume in this area. Kerosene was detected in GZ-22 (between the Engine House and the Grand Junction Branch Railroad); however, the concentration of kerosene was several orders of magnitude below the observed dissolved fuel oil component concentrations.

Eight product samples were analyzed by the TPH (GC) "fingerprinting" method during the Phase II study (Table 14). Results from five of the samples showed heavily weathered No. 2 fuel oil (indistinguishable from diesel oil by this analysis), similar to the Phase I results. Results from two wells, MW-9 and GZ-209, confirmed the presence of free-phase lubricating oil in the area west and north of the Diesel Shop. Fresh No. 2 fuel oil identified in the sample from GZ-210 southeast of the Coach House may indicate a recent fuel oil spill or leak in the fuel line which runs through this area.

6.36 Metals Analyses

Metals analyses were performed on eleven groundwater and twelve product samples during the Phase I and Phase II studies. Sample locations were selected to cover the site and to focus on the plume areas. The samples were analyzed for the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver); eight groundwater samples and eight product samples were also analyzed for iron and manganese. Results of the metals analyses are summarized on Table 15.

Table 15 also shows EPA's Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs) where MCLs/MCLGs have been established. It should be noted that MCLs and MCLGs are federal drinking water criteria and not remediation goals. They have been presented here for comparison purposes, as EPA and DEP cleanup standards do not exist.

The results for aqueous samples generally indicated metals concentrations at or below MCLs, except for lead in GZ-5 and GZ-25, lead and mercury in GZ-28, and lead, mercury, arsenic, and selenium in GZ-103. The EPA MCLG for total chromium was also exceeded in GZ-103. GZ-103 showed the highest lead and selenium concentrations (1.6 ppm and 0.017 ppm, respectively); well GZ-28 showed the highest mercury concentration (0.012 ppm). Iron was detected at concentrations up to 96 ppm and manganese up to 6.3 ppm in groundwater. Metals concentrations in product

samples were generally substantially higher (factor of 10 or more) than metals concentrations in groundwater samples.

6.37 Oil Recycling Analyses

GZA collected two product samples during the Phase II study for oil recycling analyses. A sample from MW-9 was chosen to represent the southwestern portion of the main product plume near the underground salvaged oil tank, where a mixture of lubricating oil and No. 2 fuel oil was detected. A composite sample from wells GZ-4, GZ-7, and GZ-218 was chosen to represent the No. 2 fuel oil product plume in the center of the site.

The samples were analyzed for bulk solids and water (BS&W), gross heat of combustion, net heat of combustion, cetane rating, total chlorides, and viscosity. Results of the analyses are shown below:

| | <u>MW-9</u> | <u>Composite</u> |
|----------------------------------|-------------|------------------|
| Bulk Solids and Water, % | 1.5 | 0.05 |
| Gross Heat of Combustion, BTU/lb | 18,581 | 19,328 |
| Net Heat of Combustion, BTU/lb | 17,679 | 18,216 |
| Cetane Rating | NA | 39.4 |
| Total Chlorides, ppm | 295 | 11 |
| Viscosity, 40 deg C cSt | 49.64 | 3.94 |

Results for the composite sample indicate that the diesel at the site may be suitable for recycling without treatment. The cetane rating for the MW-9 sample could not be determined due to the high (1.5 percent) bulk solids and water content. Laboratory reports for these analyses are contained in Appendix K.

6.40 FLOATING PRODUCT OBSERVATIONS

Thicknesses of floating petroleum product layers in observation wells were recorded during groundwater elevation monitoring. Historical results of floating product measurements are shown on Table 3. Observed product thicknesses ranged up to 9.2 feet in MW-1, but this thickness appears to be composed of an oil phase and a significant emulsion phase. The average product thickness in wells within the plume area is about 1.6 feet. Results of chemical analyses on product samples are presented in Section 6.30.

Floating product was observed in several areas of the site. Figure 13 shows the approximate extent of these areas, along with the floating product thickness we observed in each well on April 5, 1990. Comparison of the floating contaminant distribution plan (Figure 13) and the groundwater contour plan (Figure 6) suggests



that free product is pooling in depressions of the water table surface. Note that the distribution of floating product may change over time even without additional product sources.

The largest petroleum product plume was observed in the central portion of the site. Floating layers were observed in 13 wells in this area. The thickest product layer observed in the plume was 9.2 feet at MW-1; however, this thickness appears to be anomalous. No product was observed on several occasions at MW-8, which is less than 100 feet away. It is possible that an abandoned in-place foundation of the former coaling pocket (see Section 3.22) may be affecting product and groundwater flow in this area. Borings recently performed near GZ-218 encountered an anomalously high water/oil table and subsurface obstructions which may also be indicative of abandoned in-place foundations. Possible sources of the diesel oil in this plume include overfilling of locomotive fuel tanks and leaks in underground fuel lines (see Figure 4 for fuel line locations), and other spills.

Floating lubricating oil and No. 2 fuel oil (diesel) were detected in wells MW-9 and GZ-209 north and west of the Diesel Shop. Field observations of product from well MW-7, also located in this area, indicate a relatively viscous product that may also contain lubricating oil. These data and observations, along with observed groundwater flow directions, suggest that either the Diesel Shop area or the salvaged oil tank may be the source of the lubricating oil. Potential sources of lubricating oil in the Diesel Shop area include the aboveground clean and used lubricating oil tanks and the work areas in the Diesel Shop.

The central floating product plume shown on Figure 13 includes both the Diesel Shop area (discussed above) and the Yard 5 area. This interpretation differs from that presented in our Phase I report which indicated separate product plumes. The current interpretation is based primarily on new data from GZ-209 showing both diesel oil and lubricating oil in a previously unexplored area (Note that though several wells were destroyed between Phase I and Phase II investigations, the absence of information from these wells did not markedly affect our conclusion). It appears possible that a product plume of diesel oil may extend from north of the Budd House to the Diesel Shop area, and that a separate plume of lubricating oil may be present solely in the Diesel Shop area. Groundwater flow patterns suggest that oil may be pooling within depressions of the water table surface.

A second floating product plume appears to exist in the southern portion of the site southwest of the 100,000-gallon aboveground tank. Floating product was detected in wells GZ-210 (1.7 feet) and GZ-211 (0.3 feet). The source of this plume may be the tank itself, the fill station, the valve pit, and/or the underground fuel lines in the area. Fingerprinting analysis of product samples from GZ-210 indicated fresh No. 2 fuel oil (diesel) indicating relatively recent spills and/or leaks. The product sample analyzed from GZ-211 was highly weathered No. 2 fuel oil. During the Phase I study, a floating

product plume was observed in four wells northeast of the 100,000-gallon tank (GZ-8, GZ-9, GZ-10, and GZ-26). Floating product was not observed in this area during the Phase II study. Free product formerly observed in this area may have been captured by the nearby storm drain, which was cleared following the 47,000-gallon fuel oil spill in 1988.



GZA observed floating product in two individual wells, GZ-24 and GZ-12, on the eastern portion of the site. GZ-24 is located near the terminus of the stone and wood culvert/drain line, adjacent to the oil/water separator. Water table elevations at GZ-24 have been anomalously low during measurement rounds. The low elevations may be due to leaks in the drain line coupled with pumping from the drain line to the separator. Product thicknesses up to 5.3 feet were observed in GZ-24 during the Phase I study. The drain may be the source of the floating product. Other drains and/or structures in the area of the separator, including the separator, could also be sources of the product plume. Also, leaks and/or spills from the 1,000,000-gallon aboveground tank and its associated piping could have collected in the water table depression near GZ-24.

The product reading measured at GZ-12 may be indicative of a scum layer that has been observed in this area in the past. Other areas of floating oil may also be present at the site, and the areal extent shown on Figure 13 may vary from actual conditions, and conditions will vary over time.

6.50 SUMMARY: CONTAMINANT DISTRIBUTION

Petroleum contamination at the CRMF site has been observed in soil and groundwater and as floating product. The presence of floating product across the central portion of the site, based on observations from April 5, 1990, is shown on Figure 13. The Phase I study documented the presence of four separate plumes of floating product, centered about wells GZ-24, GZ-10, GZ-4, and MW-9. A floating product plume in the vicinity of GZ-10 was not observed during the Phase II study; the central plume (GZ-4) and eastern plume (MW-9) appeared to be continuous during recent observations, though the eastern portion of the plume is composed of lubricating oil in addition to No. 2 fuel oil; it appears that the floating product is pooling in the water table depression in the central portion of the site. Evidence of a plume was still detected at GZ-24. In addition, the Phase II investigation provided indications of a plume at GZ-12.

The distribution of petroleum contamination in subsurface soils and groundwater on the site appears to be widespread. Relatively petroleum-free areas appeared to exist north and northeast of the Power House, and near the site boundary northeast of the Budd House (GZ-13 and GZ-30). Samples collected from the area near the former 1,000,000-gallon tank showed some contamination, which may be caused by residual oil from the previously-leaking tank floor.

The majority of the petroleum contamination appears to be the result of diesel fuel use at the site. PHC fingerprinting analyses reported that most samples contained weathered No. 2 fuel oil; note that diesel fuel and No. 2 fuel oil are indistinguishable by the fingerprinting procedure.

Petroleum products other than diesel/No. 2 fuel oil were detected in several areas. The floating product plume located near the Diesel Shop appears to contain lubricating oil in addition to fuel oil. Dissolved kerosene was also detected in a sample collected from well GZ-22, northwest of the Engine House.

GZA
Samples collected from the area near the underground salvaged oil storage tank and in the Engine House septic tank area indicated the presence of chlorinated VOC contamination in these areas. In the septic tank area, PCE, TCE, and 1,1-DCE were identified by soil gas analyses. 1,1-DCA, 1,1-DCE, 1,2-DCE, TCA, TCE, and PCE were identified in analyses of groundwater from GZ-14. In the underground salvaged oil tank area, PCE, TCE, and 1,1-DCE were identified by soil gas analyses; Freon-113 was identified in soil and water at TP-3; TCA, TCE, and PCE were identified in soil from GZ-16; chloroethane was detected in water from MW-7; and 1,1-DCA and TCA were detected in water from MW-9.

Chlorinated VOCs were also detected in samples collected from other areas of the site. Eight chlorinated compounds, including 1,2-DCA, 1,1- and 1,2-DCE, TCE, PCE, chloroform and chlorobenzene, were detected in a soil sample collected at GZ-28, between the Budd House and the N.H. Main Line. The presence of these substances, along with the presence of moderately weathered No. 2 fuel oil indicated by PHC fingerprinting results, suggest that contamination at this location may be at least partly from a source other than Yard 5 (e.g., the Budd House area or localized spills). In particular, the presence of chloroform may suggest the influence of a leaky water line, a sewer, or a combined storm/sanitary sewer. TCA and toluene were detected in soil samples from GZ-31, east of the Budd House along Interstate 93. TCE was also detected in soil samples from GZ-21 (north of the office), GZ-26 (northeast of the 100,000-gallon tank), and GZ-24 (northeast of the oil/water separator). Analysis of soil sampled from GZ-19 (southeast of the Diesel Shop) showed traces of 1,2-DCE and 1,1-DCA; soil from GZ-24 showed traces of acetone. PCE, TCA, and acetone were detected in surface soils (SS-9) east of the Diesel Shop. PCE, TCE, and 1,1-DCE were detected in a number of soil gas locations across the site.

Metals analyses showed low levels of metals in soils and low levels of total metals in some groundwater samples. Of 11 groundwater samples, three exceeded MCLs for lead, two for mercury, one for arsenic and one for selenium. Results from GZ-103, in Yard 14, showed the highest metals concentrations in groundwater. In general, metals concentrations were higher (by a factor of 10 or more) in product than in groundwater. The highest metals concentrations in product were found in samples collected from GZ-6 and GZ-7.

Other contaminants detected at the CRMF included substances that may be associated with petroleum products, such as carbon disulfide and nitrobenzene. Phthalates detected in soil at GZ-16, GZ-21, and SS-9 may be due to sample container or laboratory contamination.

7.00 CONTAMINANT MIGRATION



The MCP requires the identification and characterization of potential contaminant migration pathways and receptors, and a characterization of risk to human health and the environment posed by the site. Contaminant migration is discussed in this section; a risk characterization is presented in Section 8.00.

7.10 PRODUCT PLUMES

Based on groundwater contours developed during the Phase I and Phase II studies, the petroleum product plumes at the CRMF site appear to be migrating generally to the east/northeast. The box culvert which runs generally northwest/southeast appears to contain the migration of free product on the site property; floating product has not been detected in the monitoring wells downgradient (east) of the box culvert along Interstate 93. Available plans indicate that storm drainage flow from the site goes through the oil/water separator to the Miller's River.

7.20 GROUNDWATER

Migration of groundwater at the site appears to be controlled by both local and regional flow. Based on observed groundwater contours (see Figure 6 and Section 5.30), local groundwater flow is highly variable and may be significantly influenced by rainfall, on-site sources, utility lines, and other buried structures. Some contaminated groundwater and floating oil may enter the drain system through leaky pipes and be transported through the oil/water separator off site to the Miller's River. Groundwater that is controlled by regional flow patterns may flow to the Charles River near the Charles River Dam. In either case, flow paths lead ultimately to Boston Harbor; however, the travel time for groundwater to reach the Harbor via drain lines is much shorter than the travel time via regional groundwater flow.

7.30 SOIL

Potential pathways for exposure to contaminated soils include direct contact with surface soil, inhalation of contaminants that volatilize from soil, inhalation or direct contact with contaminated wind-blown particulates, and leaching of contaminants from soil to groundwater, followed by groundwater migration to a point of exposure. Proposed construction activities at the site may increase the potential for exposure to

contaminated soils. Appropriate exposure scenarios and their associated risks are evaluated in Section 8.00.

8.00 RISK CHARACTERIZATION

8.10 METHODOLOGY

As part of the Phase II Assessment, GZA completed a public health and ecological risk characterization. The primary objective of the risk characterization was to evaluate the level of human health and ecological risk potentially associated with exposures to oil and hazardous materials (OHM) present at the CRMF site. This task addresses requirements of the risk characterization components for Phase II Assessments under the MCP, 310 CMR 40.545(3) (g) and (h). GZA utilized DEP risk characterization guidance in performing our characterization (DEP, 1989). DEP's guidance only outlines methodology for characterizing potential risks to public health and does not provide guidance for ecological risk characterization.

The details of the risk characterization are presented in Appendix L.

8.20 RESULTS AND REQUIREMENT FOR REMEDIATION

The MCP [310 CMR 40.545(3)(i)] requires that remediation at a disposal site is necessary if exposure point concentrations exceed an applicable or suitably analogous public health standard; or the total site hazard index exceeds the DEP total site hazard index limit of 0.2 or the total site cancer risk is greater than the DEP total site cancer risk limit of 10^{-5} .

The quantitative evaluation of future worker exposures during redevelopment of site indicates there is a potential for site risk to exceed the DEP risk limits (Table 16). This exceedance may occur under conservative conditions of direct contact exposure to petroleum product during excavation activities and to surface soils during construction activities. In addition, groundwater standards were exceeded for a limited number of compounds, and it appears that contaminants may discharge to nearby environmental receptors.

Based on these results, we recommend that protective clothing, including gloves and long sleeve shirts, be worn by workers to limit direct contact exposure. A groundwater collection and treatment system would provide a more permanent remedy to reduce worker exposure and to limit potential impact on environmental receptors.

9.00 SUMMARY AND CONCLUSIONS

GZA conducted a Phase II - Comprehensive Site Investigation, as defined in Chapter 310, Section 40.000 of the Code of Massachusetts Regulations, of Commuter Rail Maintenance Facility (CRMF), also known as the Boston Engine Terminal (BET), in Somerville, Boston, and Cambridge, Massachusetts.



Contamination was detected at the site in soil, groundwater, and as separate-phase petroleum product. The major contaminant observed on the site appears to be diesel/No. 2 fuel oil. A large floating petroleum product plume in the center of the site and several smaller plumes were identified. The average product thickness observed in monitoring wells within the plume areas was approximately 1 to 2 feet.

Migration of petroleum product and groundwater from the site may be significantly affected by site utilities such as storm drains. Groundwater and oil may enter leaky drains and be transported via the storm drainage network. Storm drainage from the CRMF site flows through an oil/water separator to the Miller's River and then to Boston Harbor. Regional groundwater flow is directed generally east/southeast from the CRMF site towards the Boston Inner Harbor. None of these discharge pathways appears to be upstream of water supply intakes or well recharge areas. No food chain exposure pathways were identified other than ingestion of fish from Boston Harbor by recreational fishermen.

A risk characterization was completed to evaluate potential public health and environmental risks under current and reasonably foreseeable uses of the site. Under current conditions at the site, the only potential impacts indicated were the occasional discharge of oil and groundwater to environmental receptors, including Miller's River and Boston Inner Harbor and exceedance of Massachusetts groundwater standards. Under future conditions of redevelopment of the site, worker exposure to product, groundwater and soils were indicated as posing risks that exceeded risk limits specified in the MCP. In addition, the potential for off-site migration to environmental receptors would persist if no remedial action is implemented.

Based on these results, we recommend the use of protective clothing by construction workers, including gloves and long sleeve shirts, as a temporary measure to limit direct contact exposure. As a permanent remedy, a groundwater collection and treatment system would limit worker exposure during excavation activities and reduce the potential for impact on off-site environmental receptors.

Based on the findings of the risk characterization and the MCP specifications for determining the need for remediation, GZA recommends the following:



For Surficial Soils

- Soil does not need to be removed as a remedial action.
- Protective clothing, including gloves and long sleeve shirts, should be used by workers during future excavation and construction activities to limit direct contact exposure.

For Subsurface Soils

- Soil does not need to be removed as a remedial action.
- Soil worker protection requirements should be implemented (as for surficial soils.)

For Groundwater

- Groundwater collection and treatment should be implemented.
 - To reduce direct contact exposure with product to workers during future excavation activities; and
 - To limit the potential migration and impact of product on environmental receptors, including the Miller's River and Boston Harbor.

3-2534

A BRIEF BACKGROUND OF BOSTON ENGINE TERMINAL

OIL POLLUTION PROBLEMS

BOSTON MASS.

by

LAWRENCE B. BOYD

BOYD ASSOCIATES

for

GUILFORD TRANSPORTATION INDUSTRIES INC.

COMMUTER RAIL DIV.

HIGH STREET

NORTH BILLERICA, MA.

October 22, 1986

4004

LAW DEPARTMENT

10/24/2005 02:40 FAX 19786631213

MBTA 00000000

A BRIEF BACKGROUND OF BOSTON ENGINE TERMINAL

OIL POLLUTION PROBLEMS

In 1928 the Boston and Maine Railroad secured licenses to fill a portion of Boston Harbor, at its confluence with the Charles River. This filling operation was to ultimately extend from the site of the Sullivan Square MBTA station all the way out to the Lechemere Viaduct leaving only a very narrow stretch of navigable river beyond the Bulkhead Line.

Along with the rights to fill came the obligation to collect and carry to the river, all of the drainage interrupted by the filling operation. One such drain came to the area all the way from North Somerville Station. Another came into the area from the Fitchburg Mainline beyond Tower H. There was a City of Boston combined Sewer overflow originating on Rutherford Avenue which terminated in the drainage system; however, this was removed by a MDC Charles River Sanitary Sewerage Cleanup Contract as part of the building of the Charles River Dam at the site of Warren Avenue.

As the filling operation proceeded, the Railroad began to construct its yards and facilities for the operation of the freight and passenger business, to the extent that, soon all available space was taken. There was still one landlocked section of the Millers River which was left open because The Squires Meat Packing Co., took water from it for their process. This usage continued until the late 1950s.

This section of the Millers River extended from just west of the Prison Point Bridge, westerly along the City boundary between Cambridge and Somerville a distance of 2700 feet to Tower H. In the early 1960s The Boston and Maine Corporation, as it was now named, acquired rights to fill the remaining portion of the landlocked Millers River. Behind the Bulkhead along the rivers North bank, was installed a 36" diameter culvert the full length of the open river to pick up the drainage from the Boston Engine Terminal. This drain was connected to a 4'-0" wide stone box drain, constructed in 1930 to carry the drainage from the North Somerville Station and the railroad right of way to the Boston Engine Terminal. The Railroad's work in 1960, brought the combined drains to a point approximately one hundred feet west of the Prison Point Bridge.

After trying unsuccessfully to break through the 72" reinforced concrete pipes for the building of an oil trap at the junction of the three river pipes and the final link of the Boston Terminal pipe, the Railroad retained The Perini Corp, who with it's heavy equipment and professional divers, were successful in completing an oil trap 16' X 16' X 25' deep.

The 3-72" reinforced pipes referred to in the preceding paragraph had been installed in 1930 to insure that there was a

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constant flow of tide water in and out of the land locked section of the river. The pipes which were several feet below low water line began to fail in 1940 and subsequently were lined with 48" diameter steel pipes. The three pipes are placed so the center pipe is on the City Boundary Line between Boston and Cambridge.

In the earlier days of railroading, all propulsion was by Steam Locomotives which did not cause a large amount of oil contamination at the Boston Engine Terminal. In the 1940s the Boston and Maine Railroad commenced to purchase more and more Diesel Locomotives with the result that more and more oil was spilled onto the ground during fueling and maintenance operations. As oil was cheap no one was concerned about the waste or the effect upon the environment. The oil and greases spilled went into the drain lines and found its way to the land locked river where it was trapped and could not reach the Charles River because of the depth to the pipes to the river. The accumulation of oil and oil soaked trash became so thick that the river caught on fire often in the hot summer days.

In the early 1960s the Boston and Maine Railroad sought and acquired permits to complete the filling of the land locked river and this was accomplished by filling from the West toward the East thus pushing the oil ahead of the filling operation. This oil was allowed to enter the oil trap where it was pumped into tanks and carried off by Waste Oil Contractors. the volume in the early years of operation reached 90,000 Gallons each year, but this volume began to subside as the oil was pressed out of the mud surrounding the oil trap.

At the Boston Engine Terminal, there are certain places where oil spillage is constant and often excessive. These are:

The Fueling Stands

The Filling Points for the Storage Tanks

The Service Areas of the Shop

The Ready Tracks where Locomotives and Self Propelled cars were stored awaiting dispatching to service

The Tanks themselves, both of which were found to have leaking floors.

Over the years each of these areas were surveyed and changes implemented which reduced the losses. The greatest loss was occurring where the oil was being collected. For a number of years prior to 1978, I had been trying to convince the MBTA to allow me to upgrade the oil trap, but not until 1978 was I successful. They allowed us to spend \$70,000 to add pumps and an above-ground oil separator to the system. The system remains substantially the same at this time.

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At about 1982 the 1,000,000 gallon storage tank was determined to have a leaky floor, which was subsequently replaced. The 100,000 gallon tank likewise needed a replacement floor. *X*

At my insistence, the Mechanical Department reduced the number of fueling locations from nine to four and also made repairs on the remaining locations. It was not until 1984 that we were successful in getting approval for new automatic shut off valves at the remaining locations.

The problems at the Ready Tracks and the Service Areas have eased primarily because the MBTA has replaced the Self Propelled Budd cars with Locomotives and conventional coaches, thus reducing the number of leaking units in the yard and shop.

Before the 1960 filling, there was a large storage area to hold the oil and very low flow velocity to cause turbulence and carry oil in the water through the pipes to the Charles River. After the filling was completed, there was a very small volume of water to drain out each tide so the oil had to be collected constantly otherwise it would be washed into the pipes to the Charles River. Unfortunately, this happened during nearly every storm so the U.S. Coast Guard was constantly visiting the site, with the end result that seven lines of absorbant booms were installed from bank to bank of the lower portion of the Millers River. The U.S. Coast Guard and the Commonwealth of Massachusetts Department of Environmental Quality Engineering both agree that at the very least, this action is irregular and probably illegal but until the MBTA is willing to spend sufficient money to install a system capable of handling the storm flows encountered, this does reduce the spill incidents.

RECD 10/24/2005 02:41 FAX 19786631213



DANIEL S. GREENBAUM
Commissioner
935-2160

*The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Metropolitan Boston - Northeast Region
5 A Commonwealth Avenue
Woburn, Massachusetts 01801*

April 10, 1989

Amtrak
National Railroad Passenger Corporation
2 Frontage Road
Boston, MA 02118

RE: SOMERVILLE - ERB-N88-1820

NOTICE OF RESPONSIBILITY/REQUEST
FOR TECHNICAL INFORMATION PURSUANT
TO M.G.L. CHAPTER 21E and
310 CMR 40.000

Attention: Herbert R. Knott

Dear Sir:

On November 18, 1988 Department personnel investigated reports concerning the release of 47,000 gallons of diesel fuel as the result of a faulty valve located between tracks #7 & 8 at the Amtrak terminal on the Cambridge/Somerville line. The release impacted surrounding soils, nearby storm drains and to a limited extent; the Millers Creek.

Such incident is governed by The Massachusetts Contingency Plan (MCP), 310 CMR 40.000 and Chapter 21E of the General Laws of Massachusetts (hereinafter "M.G.L. Chapter 21E"), the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, which was enacted on March 24, 1983.

Chapter 21E and the MCP identify as responsible parties the current owner or operator of a site at which there has been a release or threat of release of oil or a hazardous material; the past owner or operator of a site where a release of hazardous material has occurred; any person who directly or indirectly arranged for the transport, disposal, storage or treatment of hazardous materials to or at such a site; and any person who caused or is legally responsible for a release or a threat of release of oil or a hazardous material at such a site. Such parties are liable without regard to fault; the nature of this liability is joint and several. (M.G.L. Chapter 21E, Section 5a).

This letter is to inform you in writing that:

- (1) The Department has determined that a release of diesel fuel has occurred at the subject site.
- (2) Additional information is needed to better evaluate the need for further emergency response action at this site. Please, refer to page 3 for the requested information.

Page 2

- (3) Should you fail to implement those actions deemed necessary by this Office, the Department may, pursuant to M.G.L. Chapter 21E, take or arrange for any and all necessary actions at the site. If public funds are expended under such conditions, Chapter 21E, Section 11 stipulates that the Attorney General of the Commonwealth of Massachusetts may initiate legal action against the responsible party(s) to recover all costs incurred by the Department in the assessment, containment, and removal of any release or threat of release of oil or hazardous materials.
- (4) The liability of responsible parties in (4) above includes:
 - a. Administrative costs incurred by the Department in handling this matter.
 - b. Interest charges on the total liability at the statutory rate of 12% compounded annually;
 - c. Treble costing (i.e., three (3) times the total amount of response costs the Department incurs); and
 - d. All damages for the injury, destruction or loss of natural resources due to the release.

This liability constitutes a debt to the Commonwealth. The debt, together with interest, creates a lien on all your property in the Commonwealth. Lien placement will increase your administrative cost liability. This liability will further increase if the Department is required to go to court to recover its costs. Administrative and legal costs for simple spill cases which reach this stage total at least \$3,300.00. In addition to the foreclosure remedy provided by the lien, the Attorney General of the Commonwealth may recover that debt or any part of it in an action against you. You may also be liable under M.G.L. C.21E Section 11 for up to \$100,000 in fines or penalties for each violation of C.21E as well as for additional penalties or damages pursuant to other statutes or common law.

On November 18, 1988, at approximately 9:10 a.m., Department personnel verbally notified Mr. Bourget pursuant to Section 40.160 of the MCP of your responsibility for such release and gave you one copy of a document prepared by the Department and entitled "Brief Synopsis of M.G.L. Chapter 21E, the Massachusetts Oil and Hazardous Material Release Prevention and Response Act".

Your acceptance of responsibility for such release means that: (1) You have entered into a contract with a cleanup contractor, approved by the Department named, Clean Harbors, Inc. of South Boston, Massachusetts to (a) perform the spill cleanup as deemed necessary by the Department; (b) perform necessary analyses of the waste material and make arrangements for its appropriate treatment/disposal; (c) perform analysis of the soil/water/groundwater impacted by the release to determine contaminant conditions at the site after the initial response to the incident; and (d) submit a report of their findings for review by the Department. And (2) you will pay for all response costs incurred by the Department due to such release.

Page 3

Pursuant to the Department's authority to perform information-gathering activities and its authority to investigate, sample and inspect records, conditions, equipment, practices or property under M.G.L. C.21E Sections 2, 4 and 8, you are directed to provide to the Department, within seven (7) days of the date of this letter, an incident report to include the following information:

- (1) a brief account of why, how and where such release occurred; and
- (2) a brief description of all emergency remedial actions that have been and/or will be taken relative to such release; please include field screening data and/or analytical data (soil/groundwater) describing contaminant conditions at the site; and
- (3) an estimate, to the best of your knowledge, of the quantity of oil/hazardous material released; and
- (4) photocopies of all waste manifests for the oil/hazardous material released; and
- (5) laboratory results of soil/water samples taken from the "cleaned up" environmental media impacted by the release; and
- (6) a detailed description and a timetable of measures you plan to implement to prevent future recurrence of such incidents.
- (7) measures that will be taken to address the remaining contamination on site.

You are hereby notified that failure to respond to this letter in a timely manner, is a violation of 310 CMR 40.008 and the submission of false and inaccurate information is a violation of 310 CMR 40.009 and 40.011. Any such violations may subject you to legal action including criminal prosecution, court-imposed civil penalties, administrative orders and/or civil administrative penalties assessed by the Department pursuant to M.G.L. Chapter 21A.

It is to your advantage to respond to this request for information in an adequate and timely manner, demonstrating that you have acted appropriately in taking necessary response actions relative to this release/threat of release of oil and/or hazardous materials.

Depending on the information generated by the above work, the Department may require additional investigations, studies and response actions in conformance with 310 CMR 40.000. If you fail to take these actions or if you fail to perform these tasks in accordance with the standards of the Department, the Department may perform response actions in your stead and recover its costs from you in accordance with the provisions described above.

Page 4

Your response to the requested information and any further questions regarding this matter should be directed to Rosemarie Bradley at the letterhead address or 935-2160 and refer to case number ERB-N88-1820.

Very truly yours,

Rosemarie Bradley
Rosemarie Bradley
Environmental Analyst

Richard J. Chalpin

Richard J. Chalpin
Deputy Regional
Environmental Engineer

RJC/RB/ram

cc: Frank Sciannameo, DEQE, OIR, One Winter St., Boston, MA 02108
Somerville BOH, City Hall, Somerville, MA 02143
Somerville Fire Dept., 266 Broadway, Somerville, MA 02145
MBTA Safety Dept., Transportation Bld., 10 Park Plaza, Rm 5750, Boston, MA 02116
Amtrak, Environmental Control, 400 North Capitol St., N.W., Washington, D.C.
20001, Attn: Charles Lin

Enclosures: (1) Brief Synopsis of M.G.L. Chapter 21E
(2) OIR Policy #1 - Minimal Standards for the Submission of Analytical
Data
(3) List of DEQE-Licensed Spill Cleanup Contractors

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE
CORPORATION,

Plaintiff,

v.

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY,

Defendants.

Civil Action No. 05-11656 NMG

**ANSWER AND COUNTERCLAIMS OF DEFENDANT
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**

Defendant and Plaintiff in Counterclaim Massachusetts Bay Transportation Authority (the "MBTA") hereby counterclaims against plaintiff Boston and Maine Corporation (the "B&M") and answers its complaint as follows:

COUNTERCLAIMS

**First Counterclaim -
Recovery of Response Costs under Mass. Gen. Laws, c. 21E, § 4**

Introduction

1. The MBTA counterclaims to recover costs it has incurred and will continue to incur in responding to historic contamination at the Boston Engine Terminal (the "Terminal") or the "Site" caused by the B&M. The counterclaims are brought pursuant to the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E ("Chapter 21E"), Section 4, which provides for reimbursement of response costs from other liable parties and for a declaratory judgment of future rights and responsibilities of the parties under Chapter 21E. To

date, the MBTA has incurred response costs in an amount not less than \$15,340,810 by reason of releases of diesel fuel at the Site while the B&M owned or operated the Terminal.

Parties

2. Plaintiff-in-Counterclaim MBTA is a body politic and corporate and a political subdivision of the Commonwealth of Massachusetts, established under the provisions of M.G.L. c. 161A, as amended, with its principal offices in Boston, Massachusetts.

3. Defendant in Counterclaim B&M is a Delaware corporation with its principal office in Iron Horse Park in North Billerica, Massachusetts.

Historic Operations at the Boston Engine Terminal

4. The Terminal, also now known as the MBTA Commuter Rail Maintenance Facility, occupies approximately 34 acres in Somerville, Boston and Cambridge, Massachusetts.

5. The Terminal has been used as an active railroad maintenance facility and rail yard since the late 1800s. The B&M owned and operated the Terminal from 1929 until December 26, 1976, when it was purchased by the MBTA, and continued to operate the Terminal until December 31, 1986.

6. During its ownership and operation of the Terminal, the B&M conducted railroad, maintenance and other commercial activities on the property. These activities included operation, storage and repair of diesel powered locomotives beginning in or about the 1940s and continuing until the B&M ceased operating the Site.

7. In the course of the B&M's maintenance and operation of diesel powered locomotives at the Terminal, there were substantial releases of oil and hazardous materials to the environment.

8. The releases of diesel oil described in paragraph 7 continued until the B&M ceased operating the Site.

9. Operations at the Site improved thereafter with the growing awareness of the environmental impacts of oil releases. By the mid-1990s the MBTA had constructed a new Commuter Rail Maintenance Facility on the Site that included the installation of safeguards to prevent future releases of oil or hazardous materials.

The MBTA's Response to the Contamination of the Terminal

10. In July 1984, the MBTA's consultants completed an Oil Recovery Study at the Terminal. The MBTA had commissioned the study to assess the economic feasibility of recovering separate-phase, or floating, petroleum product. The study concluded that recovered oil could not be reused as diesel fuel and recommended, among other things, notifying the Massachusetts Department of Environmental Quality Engineering ("DEQE") of the conditions at the Site and recovering the floating petroleum product. Prior to that time, the DEQE had no involvement with the Site, and the MBTA was not aware that the oil present in soils at the Site might trigger involvement of the DEQE.

11. In July 1989, the DEQE issued a Notice of Responsibility for the Site to the MBTA. The Notice of Responsibility was the MBTA's first notification that it might be required by DEQE to perform remedial activities to clean up the Site. The MBTA submitted a

Preliminary Site Assessment and Phase I Limited Site Investigation to the DEQE in November 1989.

12. Subsequent investigations undertaken by the MBTA identified extensive contamination of the Site. The primary contaminant of concern identified was weathered diesel fuel, but other contaminants also were detected in soil and groundwater. Oil was detected in soil, in the groundwater and as floating separate-phase hydrocarbon ("SPH") underlying the Site. The Phase I and Phase II investigations undertaken by the MBTA indicated a large primary plume of floating SPH underlay the central portion of the site and that smaller areas of SPH existed in the southern and eastern portions of the Site.

13. Because of the threat of off-site contamination, the MBTA was also required to perform an assessment and risk characterization study for the nearby Millers River, to determine what impacts the oil contamination at the Site might have on that ecosystem.

14. In response to the identified contamination, the MBTA performed remedial actions at the Terminal. Those remedial actions included the removal and disposal of contaminated soils and construction of a groundwater and oil extraction and treatment system designed to reduce the amount floating SPH and treat oil contaminated groundwater.

15. In October, 2002, the MBTA submitted a Phase V Completion Report and Class C Response Action Outcome ("RAO") Statement to the Massachusetts Department of Environmental Protection, the DEQE's successor agency. This report documented that a Temporary Solution had been achieved for the Site, but that further remedial efforts could be required if on-going monitoring of the Site indicated the presence of additional recoverable SPH. The MBTA has been conducting post-RAO monitoring since October 2002.

16. To date, the MBTA has incurred costs in investigating and remediating the contamination at the Terminal in an amount not less than \$15,340,810.

The MBTA's Claims Against the B&M

17. On May 4, 2004 the MBTA's attorneys sent a demand letter to the B&M pursuant to Section 4A of Chapter 21E. That letter outlined the basis for the B&M's liability to the MBTA and demanded that the B&M reimburse the MBTA for the past and future costs it has incurred and will incur in responding to contamination caused by the B&M. That demand letter is attached to the complaint as Exhibit B.

18. The B&M responded to the MBTA's demand letter by requesting additional information from the MBTA and asserting various defenses to liability. One of the defenses asserted by the B&M was that its liability to the MBTA for contamination at the Terminal was discharged in the course of the B&M's bankruptcy proceedings, pursuant to the June 17, 1983 Consummation Order.

19. The parties exchanged subsequent correspondence concerning the MBTA's claims and the B&M's purported defenses, and also met in person to discuss those claims on November 12, 2004. On June 7, 2005 the MBTA sent a renewed demand for reimbursement of response costs and settlement offer to counsel for the B&M.

20. In response to that June 7, 2005 letter, the B&M filed this lawsuit seeking to convert its potential bankruptcy defense into a cause of action for enforcement of the 1983 Consummation Order and injunctive relief against the MBTA.

The B&M's Statutory Liability

21. The releases of diesel oil at the Terminal described in paragraphs 7 and 8 constitute releases of "oil" or "hazardous material" at a "site" as those terms are defined in Chapter 21E of the Massachusetts General Laws.

22. The actions described in paragraphs 10 through 15 were in response to the releases described in paragraph 21. The costs incurred in connection with said actions, as alleged in paragraph 16, were necessary, reasonable and consistent with the Massachusetts Contingency Plan.

23. The MBTA, as described in paragraph 17, provided notice to the B&M of its liability in accordance with the provisions set forth in Section 4A(a) of Chapter 21E. In accordance with Section 4A of Chapter 21E, as described in paragraph 19, the MBTA has conferred in good faith with the B&M in an effort to resolve all disputes between them. The B&M has refused to agree to provide reimbursement or an equitable share of the MBTA's costs in responding to the contamination at the BET.

24. By reason of the foregoing, pursuant to Section 4 of Chapter 21E, the B&M is liable to the MBTA for its equitable share of the response costs incurred, and to be incurred, by the MBTA.

25. Because substantially all or the great preponderance of the oil contamination at the Site resulted from releases during the time in which the B&M operated the Terminal, the B&M's equitable share of responsibility is not less than 95 percent.

**Second Counterclaim -
Declaratory Judgment**

26. The MBTA repeats, realleges, and incorporates as if fully set forth herein the allegations in paragraphs 1 through 25 hereof.
27. This is a claim under 28 U.S.C. §2201 for a declaration of the future rights of the MBTA and obligations of the B&M under Section 4 of Chapter 21E.
28. There is an actual and existing controversy between the parties involving their respective rights, duties, and legal relations arising from the contamination of the Terminal.
29. The MBTA is entitled to a judgment declaring its rights to payment from the B&M for damages, costs, and expenses to be incurred by the MBTA in the future in responding to the contamination at the Terminal as a result of the B&M's liability to the MBTA under Section 4 of Chapter 21E.

ANSWER

For its answer to the Complaint, the MBTA states as follows:

First Defense

30. This Court lacks subject matter jurisdiction over this action because it does not arise under Title 11 of the United States Code or other laws or the Constitution of the United States because, in substance, the action is a state law claim by the MBTA to which the B&M asserts the affirmative defense of discharge in bankruptcy.

Second Defense

As to the specific allegations of the numbered paragraphs of the complaint, the MBTA states as follows:

31. As to the allegations of paragraph 1, admits the allegations that a copy of the Consummation Order is annexed to the complaint as Exhibit A and states that the remaining allegations are conclusions of law and, accordingly, do not require a response, and to the extent a response is required, denies each and every other allegation in said paragraph.
32. As to the allegations of paragraph 2, admits the allegations that a substantial part of the events or omissions giving rise to the claim occurred in this judicial district and that the B&M's bankruptcy case was filed in this district, and states that the remaining allegations are conclusions of law and, accordingly, do not require a response, and to the extent a response is required, denies each and every other allegation in said paragraph.
33. Admits the allegations in paragraphs 3 and 4.
34. States that the allegations in paragraph 5 are conclusions of law and, accordingly, do not require a response, and to the extent a response is required, denies said allegations.
35. States that the allegations in paragraph 6 are conclusions of law or characterizations of the action and, accordingly, do not require a response, and to the extent a response is required, denies said allegations.
36. Admits the allegations in paragraphs 7 through 10.
37. Denies the allegations in paragraph 11.
38. As to the allegations of paragraph 12, admits the allegation that this Court presided over the bankruptcy proceedings and states that it is without knowledge or information sufficient to form a belief as to the truth of each and every other allegation in said paragraph.
39. Admits the allegations in paragraphs 13 and 14.

40. As to the allegations of paragraph 15, admits the allegation that March 24, 1983 is prior to the date of the Consummation Order and states the allegation as to when the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E ("Chapter 21E") became law is a conclusion of law rather than a statement of fact and, accordingly, requires no answer and denies each and every other allegation in said paragraph.

41. Denies the allegations in paragraph 16.

42. Admits the allegations in paragraphs 17 and 18.

43. As to the allegations in paragraph 19 through 21, states that the Consummation Order speaks for itself, and to the extent that the B&M characterizes the contents of the Consummation Order, that characterization is denied.

44. Denies the allegations in paragraphs 22 and 23.

45. As to the allegations in paragraph 24, repeats and reasserts the admissions, statements and denials in paragraphs 31 through 44 hereof, inclusive, as if the same were set forth herein in their entirety.

46. As to the allegations of paragraph 25, states that the Bankruptcy Act of 1898 (repealed 1978) (the "Bankruptcy Act") speaks for itself, and to the extent that the B&M characterizes the contents of the Bankruptcy Act, that characterization is denied.

47. As to the allegations of paragraph 26, states that the Consummation Order speaks for itself, and to the extent that the B&M characterizes the contents of the Consummation Order, that characterization is denied.

48. Denies the allegations of paragraphs 27 through 29.

49. As to the allegations in paragraph 30, repeats and reasserts the admissions, statements and denials in paragraphs 31 through 48 hereof, inclusive, as if the same were set forth herein in their entirety.

50. As to the allegations in paragraphs 31 and 32, states that the Consummation Order speaks for itself, and to the extent that the B&M characterizes the contents of the Consummation Order, that characterization is denied.

51. Denies the allegations in paragraph 33.

52. As to the allegations in paragraph 34, repeats and reasserts the admissions, statements and denials in paragraphs 31 through 51 hereof, inclusive, as if the same were set forth herein in their entirety.

53. Denies the allegations in paragraphs 35 and 36.

54. As to the allegations in paragraph 37, repeats and reasserts the admissions, statements and denials in paragraphs 31 through 53 hereof, inclusive, as if the same were set forth herein in their entirety.

55. As to the allegations in paragraph 38, admits the allegations that in May 2004, the MBTA transmitted a Demand Letter to the B&M seeking to recover the MBTA's investigation and remediation costs for the BET and denies each and every other allegation in said paragraph.

56. Denies the allegations in paragraphs 39 and 40.

57. States that it is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 41.

58. Denies the allegations in paragraphs 42 and 43.

Third Defense

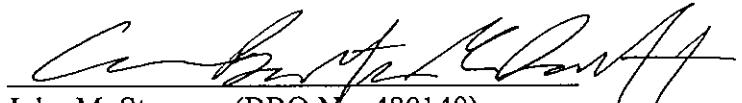
59. The complaint's cause of action for laches is deficient because the MBTA's claim against the B&M is an action at law, brought pursuant to Chapter 21E.

WHEREFORE, the MBTA prays that the Court enter judgment as follows:

1. Dismissing the complaint;
2. Awarding damages to the MBTA on its first counterclaim in the amount not less than \$14,618,419.50, plus interest;
3. Entering judgment for the MBTA on its second counterclaim declaring the MBTA's right to payment from the B&M for damages, costs and expenses to be incurred by the MBTA in the future in responding to the contamination at the Terminal;
4. Granting the MBTA its costs, including reasonable attorneys' fees, incurred in connection with the action; and

5. Granting it such other and further relief as may be just and proper.

By its attorneys,



John M. Stevens (BBO No. 480140)
Alicia Barton McDevitt (BBO No. 655184)
FOLEY HOAG LLP
155 Seaport Boulevard
Boston, Massachusetts 02210-2600
(617) 832-1000

Dated: September 30, 2005

Certificate of Service

I hereby certify that a true copy of the above document was served upon the attorneys of record for the Boston and Maine Corporation, at the addresses listed below, by mail on September 30, 2005:

Robert B. Culliford
Katherine E. Potter
Iron Horse Park
North Billerica, MA 01862
978-663-1215

Eric L. Hirschhorn
Susan A. MacIntyre
Winston & Strawn LLP
1700 K. Street, N.W.
Washington, D.C. 20006
202-282-5000

Terry John Malik
Winston & Strawn LLP
35 West Wacker Drive
Chicago, IL 60601
312-558-5600



Alicia Barton McDevitt (BBO No. 655184)

McDevitt, Alicia

From: ECFnotice@mad.uscourts.gov
Sent: Thursday, November 17, 2005 9:38 AM
To: CourtCopy@mad.uscourts.gov
Subject: Activity in Case 1:05-cv-11656-RCL Boston and Maine Corporation v Massachusetts Bay Transportation Authority "Scheduling Conference"

NOTE TO PUBLIC ACCESS USERS You may view the filed documents once without charge. To avoid later charges, download a copy of each document during this first viewing.

United States District Court

District of Massachusetts

Notice of Electronic Filing

The following transaction was received from Hourihan, Lisa entered on 11/17/2005 at 9:38 AM EST and filed on 11/16/2005

Case Name: Boston and Maine Corporation v Massachusetts Bay Transportation Authority
Case Number: 1:05-cv-11656 <<https://ecf.mad.uscourts.gov/cgi-bin/DktRpt.pl?99417>>

Filer:

Document Number:

Docket Text:

ElectronicClerk's Notes for proceedings held before Judge Reginald C. Lindsay : Scheduling Conference held on 11/16/2005. Discovery schedule as to Phase I, Bankruptcy Discharge Issue. Automatic disclosure due by 2/28/06. Expert disclosure due by 3/15/06. Discovery due by 3/31/2006. Motions due by 5/1/2006. Response to motions due by 5/22/06. (Court Reporter None Present.) (Hourihan, Lisa)

The following document(s) are associated with this transaction:

1:05-cv-11656 Notice will be electronically mailed to:

Robert B. Culliford rculliford@flypanam.com

Eric L. Hirschhorn ehirschhorn@winston.com

Alicia B. McDevitt amcdevitt@foleyhoag.com

John M. Stevens , Jr jstevens@foleyhoag.com, edelisle@foleyhoag.com; amcdevitt@foleyhoag.com

1:05-cv-11656 Notice will not be electronically mailed to:

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE CORPORATION,)
Plaintiff,)
-v.-)
MASSACHUSETTS BAY TRANSPORTATION) Civil Action No. 05-11656-RCL
AUTHORITY,)
Defendant.)

**JOINT STATEMENT OF THE PARTIES
PURSUANT TO LOCAL RULE 16.1(D)**

Pursuant to Local Rule 16.1(D) and the Court's order of October 5, 2005, the parties hereby present the following joint statement:

1. Counsel for the parties conferred by telephone on October 26, 2005. Aside from the proposed pretrial schedule that appears below, the only agenda item proposed by the parties is whether the defendant, Massachusetts Bay Transportation Authority (the “MBTA”), intends to press its first defense, namely that this Court lacks jurisdiction over the subject matter of this action.

2. The position of the plaintiff, Boston and Maine Corporation ("B&M") is that MBTA, by seeking to recover alleged environmental cleanup costs in respect of the Boston Engine Terminal ("Terminal") from B&M, is violating the bankruptcy consummation order issued by this Court in 1983. This Court should declare that most or all of the costs for which

B&M allegedly is responsible were discharged in bankruptcy and should enjoin MBTA from continuing to seek recovery from B&M. It is further B&M's position that between the effective date of the 1983 consummation order and the time in 1986 when B&M ceased its involvement with the Terminal, there were no cost-generating environmental events at the Terminal for which B&M is responsible.

3. The position of defendant MBTA is that, in essence, this action presents a claim arising under the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E ("Chapter 21E"), to which the B&M has asserted the defense of discharge in bankruptcy. It is the MBTA's further position that its claims against the B&M for recovery of environmental response costs, which were incurred on account of releases of diesel fuel at the Terminal while the B&M owned or operated the Terminal, were not discharged by the 1983 bankruptcy consummation order because the MBTA's present claims were not in the fair contemplation of the parties at the time of the order. The MBTA therefore counterclaims to recover costs it has incurred and will continue to incur in responding to historic contamination at the Terminal caused by the B&M. The counterclaims are brought pursuant to Section 4 of Chapter 21E, which provides for reimbursement of response costs from other liable parties and for a declaratory judgment of future rights and responsibilities of the parties under Chapter 21E. To date, the MBTA has incurred response costs in an amount not less than \$15,340,810 by reason of releases at the Terminal caused by the B&M. It is also the position of the MBTA that, even if the B&M prevails on its defense of discharge in bankruptcy, because there were releases of diesel fuel for which the B&M is responsible for a period of years after the effective date of

the consummation order, the B&M is still liable for the greater part of those costs, without any legal requirement to relate particular costs to particular releases.

At this time there are no other parties to the action.

4. The parties have agreed to propose the following pretrial schedule (including discovery plan):

Initial phase—bankruptcy discharge issue.

| | |
|---|-------------------|
| - Fact discovery opens | December 1, 2005 |
| - Fact discovery completed | February 28, 2006 |
| - Provide expert reports | March 15, 2006 |
| - Expert discovery completed | March 31, 2006 |
| - File partial summary judgment motions | May 1, 2006 |
| - File oppositions to same | May 22, 2006 |
| - File replies to same | June 12, 2006 |

Second phase—liability and damages aspects.

| | |
|---------------------------------|--|
| - Open fact discovery | Two weeks after partial summary judgment motions decided |
| - Close fact discovery | Six months thereafter. |
| - Provide expert reports | One month thereafter. |
| - Conclude expert discovery | One month thereafter. |
| - File summary judgment motions | One month thereafter. |
| - File opposition to same | Three weeks thereafter. |
| - File replies to same | Two weeks thereafter. |

5. Each party has executed a Certification Pursuant to Local Rule 16.1(D)(3), which shall be filed separately.

6. The parties will not consent to trial by a U.S. Magistrate Judge.

Respectfully submitted,

BOSTON AND MAINE CORPORATION,

By its attorneys:

Eric L. Hirschhorn (by A. McDevitt)

Eric L. Hirschhorn
Winston & Strawn LLP
1700 K Street, N.W.
Washington DC 20006
(202) 282-5000

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY,

By its attorneys:

Carla McDevitt

John M. Stevens
Alicia Barton McDevitt
Foley Hoag LLP
155 Seaport Boulevard
Boston, Massachusetts 02210-2600
(617) 832-1000

Dated:
November 8, 2005

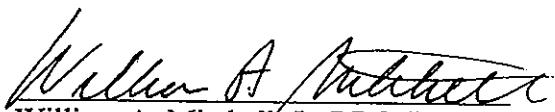
Dated:
November 8, 2005

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE CORPORATION,)
Plaintiff,)
-v.-)
MASSACHUSETTS BAY TRANSPORTATION) Civil Action No. 05-11656-RCL
AUTHORITY,)
Defendant.)

CERTIFICATION PURSUANT TO LOCAL RULE 16.1(D)(3)

Defendant Massachusetts Bay Transportation Authority, and its counsel herein, hereby certify that they have conferred: (a) with a view to establishing a budget for the costs of conducting the full course-- and various alternative courses-- of litigation; and (b) to consider the resolution of the litigation through the use of alternative dispute resolution such as those outlined in LR 16.4.



William A. Mitchell, Jr. BBO #349520
General Counsel
MBTA
Transportation Building
Ten Park Plaza, Room 7760
Boston, MA 02116



John M. Stevens, BBO #480140
Foley Hoag LLP
155 Seaport Boulevard
Boston, MA 02210-2600

United States District Court

DISTRICT OF

BOSTON AND MAINE CORPORATION

SUMMONS IN A CIVIL CASE

v.

CASE NUMBER:

U5 CA 11656

RCL

MASSACHUSETTS BAY TRANSPORTATION
AUTHORITY

TO: (Name and address of defendant)

Massachusetts Bay Transportation
Authority
10 Park Plaza
Boston, Massachusetts 02116

YOU ARE HEREBY SUMMONED and required to serve upon PLAINTIFF'S ATTORNEY (name and address)

Katherine E. Potter, Esq.
Boston and Maine Corporation
Iron Horse Park
North Billerica, MA 01862
(978) 663-1215

an answer to the complaint which is herewith served upon you, within 20 days after service of this summons upon you, exclusive of the day of service. If you fail to do so, judgment by default will be taken against you for the relief demanded in the complaint. You must also file your answer with the Clerk of this Court within a reasonable period of time after service.

SARAH A. THORNTON



CLERK

(BY) DEPUTY CLERK

AUG 10 2005
DATE

COPy

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BOSTON AND MAINE CORPORATION,

Plaintiff,

-v.-

MASSACHUSETTS BAY TRANSPORTATION
AUTHORITY,

Defendants.

05 CA 11656

Bowler w/

RMC

Case No. 66168
 RECEIPT # 66168
 AMOUNT \$ 250
 SUMMONS ISSUED 4
 LOCAL RULE 4.1 1
 WAIVER FORM 1
 MCF ISSUED 1
 BY DPTY. CLK. 1
 DATE 6/23/06

COMPLAINT FOR
ENFORCEMENT OF BANKRUPTCY CONSUMMATION ORDER
INJUNCTIVE RELIEF AND CONTEMPT

FILED
 Clerk's Office
 USDC, Mass.
 Date 6/23/06
 By Deputy Clerk

The plaintiff—Boston and Maine Corporation—seeks to enforce the June 17, 1983 Consummation Order (“Consummation Order”) entered by this Court in Boston and Maine’s bankruptcy proceedings. The defendant—the Massachusetts Bay Transportation Authority—recently asserted, for the first time, environmental claims against Boston and Maine that antedate the Consummation Order. The Consummation Order discharged such claims permanently, however, and enjoined their assertion.

Boston and Maine, which operates a railroad providing freight service in the northeastern United States, emerged from bankruptcy as a reorganized entity in 1983. This Court presided over the bankruptcy proceedings, which were held pursuant to the Bankruptcy Act of 1898 (subsequently repealed). This action seeks to enforce the Consummation Order.

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On May 4, 2004, MBTA asserted a claim against Boston and Maine for reimbursement of costs that MBTA allegedly has incurred, and may incur in the future, to investigate and remediate environmental contamination at the Boston Engine Terminal (the "Terminal"). The Terminal is a rail yard, in operation since 1875, at which locomotives and other rail rolling stock are fueled, maintained, and repaired. According to MBTA, the contamination occurred while Boston and Maine either owned or operated the Terminal during the period 1926 through 1986. MBTA's claim and demand for payment is in excess of \$15 million.

This Court's Consummation Order rendered effective Boston and Maine's Amended Plan of Reorganization, confirmed by this Court on May 10, 1983, and enjoined the assertion of claims against Boston and Maine arising on or before June 30, 1983. MBTA purchased the Terminal from Boston and Maine's bankruptcy estate in 1976 and knew before the Consummation Order was entered that the Terminal had been affected by the release of petroleum products. Nevertheless, MBTA failed to file a proof of claim in Boston and Maine's bankruptcy case. Accordingly, MBTA is enjoined from asserting a claim against Boston and Maine for contamination that occurred prior to June 30, 1983 and any such claims are forever barred.

MBTA's assertion of a claim against Boston and Maine violates several provisions of the Consummation Order. This action seeks an order (a) enforcing the Consummation Order against MBTA; (b) enjoining MBTA from asserting a claim against Boston and Maine for costs incurred, and that might be incurred, to investigate and remediate contamination existing at the Terminal prior to June 30, 1983; and (c) finding that MBTA's assertion of such a claim is in contempt of the Consummation Order. In addition, Boston and Maine seeks a declaration that

MBTA's substantial delay in asserting its claim renders such claim untimely pursuant to the doctrine of laches.

For its Complaint, Plaintiff states as follows:

Jurisdiction and Venue

1. This Court has subject matter jurisdiction over the claims of Boston and Maine ("B&M") pursuant to 28 U.S.C. §§ 1331 and 1334. This Court also retains jurisdiction pursuant to § 8.02 of the Consummation Order. A copy of the Consummation Order is annexed hereto as Exhibit A.
2. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1331(b) because a substantial part of the events or omissions giving rise to the claim occurred in this judicial district, and pursuant to 28 U.S.C. § 1409(a) because B&M's bankruptcy case was filed in this district and this is a proceeding arising under Title 11 of the United States Code or arising in or related to a case under Title 11.

Parties and Statement of the Case

3. The plaintiff, B&M, is a Delaware corporation with its principal place of business at Iron Horse Park, North Billerica, Massachusetts 01862. B&M is a common carrier by rail providing freight service in the northeastern United States.

4. The defendant, Massachusetts Bay Transportation Authority ("MBTA"), is a body politic and corporate, and is an independent political subdivision of the Commonwealth of Massachusetts. MBTA provides mass transportation service throughout eastern Massachusetts by means of bus, subway, light rail, and otherwise.

5. This action arises under the Bankruptcy Act of 1898 (formerly codified at Title 11 of the United States Code and now repealed) and orders issued pursuant thereto, including this Court's Consummation Order.

6. B&M seeks injunctive relief—consistent with the provisions of the Consummation Order—restraining and enjoining MBTA from asserting claims against B&M for reimbursement, and future payment, of MBTA's alleged costs associated with the investigation and remediation of environmental contamination at the Terminal, insofar as such claims arose on or before June 30, 1983—the final bar date established by the Consummation Order.

Facts

7. MBTA has asserted a claim against B&M under the Massachusetts Oil and Hazardous Materials Release Prevention Response Act, Mass. Gen. L. ch. 21E (“Chapter 21E”), with respect to alleged environmental contamination at the Terminal.

8. MBTA's claim against B&M was made initially by a demand letter dated May 4, 2004, pursuant to Section 4A of Chapter 21E (the “Demand Letter”). A copy of the Demand Letter is annexed hereto as Exhibit B.

9. MBTA's claim purportedly arises from contamination at the Terminal that resulted from historic railroad and maintenance activities conducted at the Terminal.

10. MBTA alleges that the contamination, consisting of releases of oil or hazardous materials, primarily occurred during the period 1926 through 1986, when B&M owned or operated the Terminal. MBTA asserts that the primary contaminant of concern is weathered diesel fuel oil. *See* Demand Letter, Exhibit 2, page 2, para. 4.

11. The Demand Letter seeks payment in excess of \$15 million from B&M.

12. B&M operated under Bankruptcy Court protection from 1970 to 1983 under the Bankruptcy Act of 1898, as amended (the "Act"). This Court presided over the bankruptcy proceedings, which were styled *In the Matter of Boston and Maine Corporation, Debtor*, Bankr. No. 70-250-M (1970).

13. In December 1976, with the approval of this Court, MBTA purchased the Terminal from the bankruptcy estate of B&M.

14. After the sale, B&M continued to operate the Terminal from 1976 through December 31, 1986.

15. Chapter 21E became law on March 24, 1983, prior to the date of the Consummation Order. Similar legal and equitable remedies to redress environmental contamination at the Terminal were available to MBTA before the enactment of Chapter 21E.

16. MBTA had knowledge of petroleum releases and petroleum contamination at the Terminal prior to June 1983, the date of the Consummation Order, and MBTA's claim for clean-up costs for such contamination existed in or before June 1983.

17. MBTA did not file in the B&M bankruptcy proceeding any proof of claim relating to alleged contamination clean-up costs at the Terminal.

18. On June 30, 1983, B&M emerged from bankruptcy protection as a reorganized entity under the terms of the Consummation Order.

19. Section 5.03 of the Consummation Order provides that "the Debtor and the Debtor's Trustees shall, as of the Consummation Date, be discharged and released forever from:

(a) all obligations, debts, liabilities and claims against the Debtor's Trustees or the Debtor, whether or not filed or presented, whether or not approved, acknowledged or allowed in these proceedings and whether or not provable in bankruptcy, including without limitation all claims assumed or guaranteed

by the Debtor's Trustees or the Debtor or enforceable against the property of the Debtor;

(b) all obligations, debts, liabilities, claims, costs and expenses arising out of or in connection with the Debtor's Trustees' administration of the property, business and affairs of the Debtor, whether or not approved, acknowledged or allowed in these proceedings, accruing prior to the Consummation Date.

20. Section 2.01 of the Consummation Order also provides that the Consummation Date was June 30, 1983 and Section 8.01 provides that "all persons, firms, governmental entities and corporations" are enjoined from bringing claims following the Consummation Date. Specifically, Section 8.01 states as follows:

All persons, firms, governmental entities and corporations, wherever situated, located or domiciled, are hereby permanently restrained and enjoined from instituting, prosecuting or pursuing, or attempting to institute, prosecute or pursue, any suits or proceedings, at law or in equity or otherwise, against the Debtor's Trustees or the Reorganized Company or its or their successors or assigns . . . directly or indirectly, on account of or based upon any right, claim or interest of any kind or nature whatsoever which any such person, firm, governmental entity or corporation may have in, to or against the Debtor, the Debtor's Trustees or any of their assets or properties, and . . . from interfering with or taking steps to interfere with the Reorganized Company, its officers and agents, or the operation of the properties or the conduct of the business of the Reorganized Company by reason of or on account of any obligation or obligations incurred by the Debtor or the Debtor's Trustees in these proceedings, except the obligations imposed . . . by the Amended Plan and this Order. . . . All persons, firms, governmental entities and corporations, wherever situated, located or domiciled, are hereby restrained and enjoined from instituting, prosecuting or pursuing or attempting to institute, prosecute or pursue any action, suit or proceedings, at law, in equity or otherwise, against the Debtor's Trustees or the Reorganized Company or any of its or their assets or property, directly or indirectly, except such actions, suits or proceedings as may be for the purpose of carrying out this Order or consummating the Amended Plan.

21. Section 8.02(g) of the Consummation Order provides that this Court has the authority to "take such further action and to enter such further orders as may be necessary to . . . prevent interferences" with the Consummation Order.

22. The claim now asserted by MBTA in the Demand Letter was or should have been fairly contemplated by MBTA, and was reasonably foreseeable by MBTA, prior to the entry and effective date of the Consummation Order and prior to the final bar date established by section 2.01 thereof.

23. Prior to the entry of the Consummation Order, B&M and MBTA had a relationship in connection with the Terminal that was sufficient to give rise to a claim by MBTA against B&M for the alleged contamination that is the subject of the Demand Letter.

COUNT I

Enforcement of June 17, 1983 Consummation Order

24. Plaintiff repeats and realleges the allegations of paragraphs 1 through 23 as if fully set forth here.

25. Section 77 of the Bankruptcy Act of 1898 (11 U.S.C. § 205(b) (1976) (repealed 1978)) governed railroad bankruptcies. Section 77(b) broadly defined "claims" to include "debts, whether liquidated or unliquidated . . . or other interests of whatever character."

26. The Consummation Order expressly provides that claims arising prior to the Consummation Date are discharged as of the Consummation Date.

27. MBTA had knowledge of the supposed contamination at the Terminal prior to June 30, 1983.

28. MBTA could have filed a claim against B&M for contamination at the Terminal, under Chapter 21E or other law, before the Consummation Date, yet MBTA failed to do so.

29. MBTA's claim for past and future investigation and remediation costs pursuant to Chapter 21E contravenes the discharge provisions of the Consummation Order, thereby

depriving B&M of its rights under the Bankruptcy Act of 1898 and the Consummation Order, and causing damage and prejudice to B&M.

COUNT II

Injunctive Relief

30. Plaintiff repeats and realleges the allegations of paragraphs 1 through 29 as if fully set forth here.

31. Section 8.01 of the Consummation Order permanently enjoins "all persons, firms, governmental entities and corporations" from "instituting, prosecuting or pursuing, or attempting to institute, prosecute or pursue, any suits or proceedings, at law or in equity or otherwise" after the Consummation Date that are based on pre-Consummation Date claims against the Debtor.

32. This Court retains exclusive jurisdiction, pursuant to Section 8.02(f) of the Consummation Order, to "consider and take appropriate action with respect to the injunctive provisions of [the] Order," including enforcement of such injunctive provisions:

33. MBTA's claim against B&M for past and future investigation and remediation costs pursuant to Chapter 21E contravenes the injunctive provisions of the Consummation Order, thereby depriving B&M of its rights under the Bankruptcy Act of 1898 and the Consummation Order, and causing damage and prejudice to B&M.

COUNT III

Contempt of Consummation Order

34. Plaintiff repeats and realleges the allegations of paragraphs 1 through 33 as if fully set forth here.

35. By seeking pre-Consummation Date remediation and investigation costs more than twenty years after the Consummation Date, despite the fact that MBTA had the requisite knowledge, notice, and opportunity to make such a claim in the B&M bankruptcy proceeding, MBTA evinces contempt for the Consummation Order and this Court's authority in issuing and enforcing that Order.

36. MBTA's actions also deprive B&M of its rights under the Bankruptcy Act of 1898 and the Consummation Order, thereby causing damage and prejudice to B&M.

COUNT IV

Laches

37. Plaintiff repeats and realleges the allegations of paragraphs 1 through 36 as if fully set forth here.

38. In May 2004—nearly thirty years after MBTA purchased the Terminal from B&M in 1976, more than twenty years after the Consummation Date in 1983, and nearly twenty years after B&M ceased operating the Terminal in 1986—MBTA transmitted the Demand Letter to B&M seeking to recover MBTA's alleged investigation and remediation costs at the Terminal.

39. MBTA thus substantially, unreasonably, and unjustifiably delayed in asserting its claim for recovery of clean-up costs, despite MBTA's knowledge of the operations at the Terminal and of petroleum releases there, and despite MBTA's opportunity to bring such a claim since 1976.

40. Prior to sending the Demand Letter to B&M, MBTA had given B&M no notice that MBTA had incurred costs in respect of investigation or remediation of contamination at the Terminal.

41. Prior to receiving the Demand Letter, B&M had no knowledge or notice that MBTA would assert a claim for past or future investigation or remediation costs in connection with the Terminal.

42. MBTA accordingly is guilty of laches.

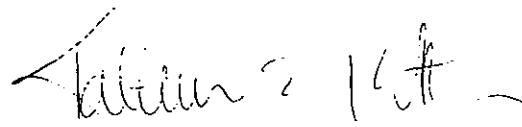
43. B&M has suffered and will suffer damage and prejudice in the event that the current MBTA claim, and any similar future claims for investigation and clean-up costs, are not held to be barred.

PRAYER FOR RELIEF

WHEREFORE, the plaintiff Boston and Maine Corporation prays that this Court—

- (1) enter an order enforcing this Court's Bankruptcy Consummation Order of June 17, 1983 against MBTA;
- (2) as to contamination occurring before June 30, 1983, enter an order enjoining the assertion by MBTA against B&M of claims for investigation or remediation costs at the Terminal;
- (3) find and determine that MBTA's assertion of such claims is in contempt of the Consummation Order;
- (4) find and determine that MBTA's assertion of such claims is prohibited pursuant to the doctrine of laches;
- (5) award B&M its costs, including reasonable attorneys' fees; and
- (6) grant such other relief as may be just and proper.

Respectfully Submitted,



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August 10, 2005

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

ORDER 725

In the Matter of

BOSTON AND MAINE CORPORATION,

No. 70-250-M

Debtor

CONSUMMATION ORDER

MURRAY, Senior District Judge

This case came on to be heard on June 3, 1983, on the "Petition Of Trustees Of The Property Of Boston and Maine Corporation, Debtor For Entry Of An Order Authorizing Consummation Of Amended Plan Of Reorganization", after due notice of the time and place of the hearing having been given pursuant to the order of the court, and, thereupon, upon consideration of the answers and statements filed¹ in response to the petition, the arguments of counsel for the Trustees of the Property of the Debtor (herein "Debtor's Trustees") and for certain parties in interest, and the entire record of the proceedings in this case, it appearing that:

1. The Amended Plan of reorganization of the Debtor, Boston and Maine Corporation, was approved by the court on December 30, 1982, and was confirmed on May 10, 1983, pursuant to Orders No. 708 and

No. 724, respectively;

2. This court has exclusive jurisdiction of the Debtor and its properties, wherever located;
3. This court has exclusive jurisdiction of all claims, rights, demands, interests, liens, and encumbrances of every kind and character of creditors of, or claimants against, the Debtor or its properties, whether or not properly or timely filed and whether or not approved in these proceedings;

It is, therefore, ORDERED that:

I. APPROVAL OF DOCUMENTS AND AGENTS

1.01. Approval of Documents. The form and provisions of each of the following designated documents, appended to this Order, are approved and are found and adjudged to be in all respects in accordance with the intent and requirements of the Amended Plan and to be appropriate and proper to carry it into effect:

- (a) Certificate of Amendment of the Certificate of Incorporation of the Debtor [Appendix A];
- (b) Redeemable Preference Share Certificate, Series A [Appendix B];
- (c) Redeemable Preference Share Certificate, Series B [Appendix C];
- (d) Common Stock Certificate [Appendix D];
- (e) Discharge of First Mortgage [Appendix E];
- (f) Discharge of Income Bond Mortgage [Appendix F];
- (g) Form of Debtor's Trustees' Deed [Appendix G];
- (h) Indemnification Resolution of the Reorganized Company [Appendix H].

1.02. Power to Make Certain Corrections. Before the execution, delivery or filing of any documents referred to in

Section 1.01 of this Order, the Debtor's Trustees are authorized to make or cause to be made any necessary typographical or clerical corrections, to fill in any blanks and to make any clarifying or conforming changes in such documents which do not change the substance thereof.

1.03. Approval of Agents. The following agents are hereby approved:

| <u>Position</u> | <u>Name of Agent</u> |
|---|-------------------------------------|
| Transfer Agent and Registrar for Redeemable Preference Shares and Common Stock | Reorganized Company |
| First Mortgage Bond Claims Agent | The First National Bank of Boston |
| Income Bond Claims Agent (and Transfer Agent, Registrar and Paying Agent for Series A Certificates of Contingent Interest, "Series A CCIs") | State Street Bank and Trust Company |
| Exchange Agent (and Transfer Agent, Registrar and Paying Agent for Series B, C, and D Certificates of Contingent Interest, "Series B, C, and D CCIs") | State Street Bank and Trust Company |
| Custodian of Segregated Account | State Street Bank and Trust Company |

1.04. Approval of Acquisition Agreement. The Acquisition Agreement dated July 8, 1981, between the Debtor's Trustees and Guilford Transportation Industries, Inc. ("Guilford"), as amended by the First, Second and Third Amendments thereto, is hereby approved, and the Debtor's Trustees are authorized and directed to carry out the provisions of the amended Acquisition Agreement.

II. CONSUMMATION DATE

2.01. Consummation Date. The date on which legal title to all property, assets, claims and rights of the Debtor and the Debtor's Trustees will be vested in or transferred to the reorganized Boston and Maine Corporation (the "Reorganized Company"), the date that the Debtor's Trustees shall be discharged and relieved of their duties and responsibilities in respect of administration of the property or the conduct of the business and affairs of the Debtor, and the date the Reorganized Company will commence issuing or reserving for issuance its securities as set forth in the Amended Plan, will be June 30, 1983.

2.02. Closing and Opening Books. The Debtor's Trustees shall cause the books and accounts of the Debtor to be closed as of 12:00 Midnight, E.D.T., on the Consummation Date. The books and accounts of the Reorganized Company shall be opened as of 12:01 A.M., E.D.T., on the day following the Consummation Date.

III. CAPITALIZATION OF THE REORGANIZED COMPANY

3.01. Amendment of Charter and Authorization to Issue Common Stock. The Debtor's Trustees are hereby authorized and directed to execute on behalf of the Debtor and to cause to be filed on or before the Consummation Date with the Secretary of State of the State of Delaware and recorded with the Recorder of the County of New Castle, Delaware, a

Certificate of Amendment of the Certificate of Incorporation of the Debtor in the form approved by Section 1.01 of this Order. As of the Consummation Date, all of the presently authorized Preferred and Common Stock of the Debtor, including all shares of such stock which are then outstanding, or are held by the Debtor's Trustees as Treasury stock or otherwise, shall be cancelled. As of the Consummation Date, the First Mortgage Bonds and the Income Bonds registered in the name of Guilford pursuant to Sections 3.4 and 3.5 of the Amended Plan shall be transferred to the Debtor's Trustees, and the bonds shall thereupon be cancelled by the Debtor's Trustees, and the Reorganized Company shall issue to Guilford, and Guilford shall become the sole owner of 2,425,000 shares of the new Common Stock, which shares shall constitute all of the outstanding Common Stock of the Reorganized Company.

3.02. Authorization of Issuance of Redeemable Preference Shares. Upon the issuance of the new Common Stock to Guilford on the Consummation Date, the directors of the Reorganized Company shall provide for the issuance of Redeemable Preference Shares in Series A and Series B to the United States of America in accordance with the provisions of Section 3.1(1) of the Amended Plan and the Preference Share Agreement referred to therein.

IV. SEGREGATED ACCOUNT

4.01. Establishment of Account. As of the Consummation Date, the Segregated Account shall be established as provided in Section 3.3(1) of the Amended Plan, as modified by the opinion of the court dated February 23, 1983, at the State Street Bank and Trust Company, the custodian of the Segregated Account.

V. TRANSFER OF PROPERTIES AND DISCHARGE OF ENCUMBRANCES

5.01. Vesting and Transfer of Properties. Effective as of the Consummation Date, all the business and affairs and all of the assets and property, real and personal, remaining in the estate of the Debtor, of every name and nature, in any form, and all right, title and interest therein of the Debtor's Trustees, other than all cash and cash equivalents and other assets which are to be deposited in the Segregated Account pursuant to Section 3.3(1) of the Amended Plan, shall, the laws of any state or the decision or order of any state authority to the contrary notwithstanding, be transferred to, vest in and become the absolute property of the Recorganized Company and shall, except as to any obligations assumed pursuant to Section 6.04 of this Order and any mortgages or security interests securing such assumed obligations, be free and clear of all claims, rights, demands, interests, liens and encumbrances of every kind and character, whether or not properly or timely filed and whether or not approved, acknowledged or allowed in these proceedings, of the Debtor's or the Debtor's

Trustees' creditors, claimants or stockholders, including, without limitation, all liens and encumbrances which have attached to the proceeds from the sale of any property of the Debtor or the Debtor's Trustees.

5.02. Disposition of Funds Held By Debtor's Trustees, Indenture Trustees, Paying Agents, etc. Effective as of the Consummation Date, all of the funds held by the Debtor's Trustees in their capacity as such (other than the cash and cash equivalents and proceeds of claims to be deposited in the Segregated Account as provided in the Amended Plan) including (i) funds or securities heretofore deposited by the Debtor's Trustees, the Debtor, or their predecessors for the payment or partial payment of securities, interest, interest coupons or dividends, (ii) funds representing proceeds from sales of properties of the Debtor, and (iii) funds held pursuant to orders of this court by any and all indenture trustees, paying agents, escrow agents or fiduciaries, shall vest absolutely and without restriction in the Reorganized Company and shall be paid thereafter by each such person holding any such funds to or upon the order of the Reorganized Company in accordance with the Amended Plan; and any such payments to or upon the order of the Reorganized Company shall, pro tanto, constitute satisfaction of any liability to the Debtor or the Debtor's Trustees of any such person for such funds; PROVIDED, that any funds being held

by The First National Bank of Boston with respect to missing coupons of First Mortgage Bonds presented for payment in response to the Debtor's Trustees' Tender Offer of May 3, 1979 shall continue to be held and disposed of by the said Bank in accordance with the terms of the said Tender Offer until the fifth anniversary of the Consummation Date, and any such funds then remaining shall then be paid to the custodian of the Segregated Account.

5.03. Discharge and Release of Claims. Subject to (i) the provisions of Section 6.04 of this Order relating to the payment, assumption or satisfaction by the Reorganized Company of certain claims and executory contracts, and (ii) the rights of the various classes of creditors of the Debtor to receive payments out of the Segregated Account as provided by the Amended Plan, the Debtor and the Debtor's Trustees shall, as of the Consummation Date, be discharged and released forever from:

(a) all obligations, debts, liabilities and claims against the Debtor's Trustees or the Debtor, whether or not filed or presented, whether or not approved, acknowledged or allowed in these proceedings and whether or not provable in bankruptcy, including without limitation all claims assumed or guaranteed by the Debtor's Trustees or the Debtor or enforceable against the property of the Debtor;

(b) all obligations, debts, liabilities, claims, costs and expenses arising out of or in connection with the Debtor's Trustees' administration of the property, business and affairs of the Debtor, whether or not filed or presented and whether or not approved, acknowledged or allowed in these proceedings, accruing prior to the Consummation Date; and

(c) all obligations, debts, liabilities and claims with respect to all bonds, coupons, debentures, notes, certificates, evidences of indebtedness, shares of stock, securities and leases (including interest accrued and dividends declared), without limitation as to their nature and whether made, assumed or guaranteed by the Debtor or the Debtor's Trustees or enforceable against them or the property of the estate.

5.04. Discharge and Release of Mortgages. Except for those mortgages, security interests or other encumbrances described in Section 6.04 of this Order to which certain properties to be transferred by the Debtor's Trustees to the Reorganized Company shall remain subject, all mortgages, indentures, collateral trust indentures and other instruments entered into by the Debtor, or its predecessor, that now constitute or heretofore constituted a lien on any of the property of the Debtor, other liens of record on such property, all mortgages, indentures, collateral trust indentures or instruments supplementing or modifying the same and all covenants therein contained shall, as of the Consummation Date, become, and thereafter forever remain, satisfied, discharged, released, cancelled, null and void and of no effect whatever. All right, title and interest of the respective trustees of such mortgages and indentures are hereby transferred to and vested in the Reorganized Company as of the Consummation Date. In furtherance and confirmation of such discharge and release of mortgages and indentures, each trustee now acting under such mortgages, indentures, collateral trust indentures or other

instruments is hereby authorized and directed to execute and deliver, as of the Consummation Date, deeds or instruments of release, discharge and satisfaction thereof in recordable form, satisfactory to the Reorganized Company. Without limiting the generality of the foregoing, each trustee now acting under the First Mortgage Indenture, dated December 1, 1919, and supplemental indentures securing the First Mortgage Bonds, and under the General Income Mortgage Indenture dated as of July 1, 1940, and supplemental indentures securing the Income Bonds, is hereby authorized and directed to execute and deliver to the Reorganized Company, as of the Consummation Date, mortgage discharges substantially in the respective forms approved in Section 1.01 (e) and (f) of this Order. Whether executed before or after the Consummation Date, each of said instruments shall be effective as of the Consummation Date. Each trustee acting under such mortgages or indentures is authorized and directed to transfer, convey, release and delivery to the Debtor's Trustees, or, upon the order of the Debtor's Trustees, to the Reorganized Company, as of the Consummation Date, all sums of money in such trustee's hands, or subject to its disposition, as trustee, paying agent, escrow agent or fiduciary, and all shares of stock, evidences of indebtedness, other securities, credits, choses in action and other property, rights and interests of every kind or description held or claimed by it as trustee, paying agent, escrow agent or fiduciary. The execution

of instruments and the transfer and delivery of properties pursuant to this Section 5.04 shall be solely for the purpose of releasing and conveying to the Debtor's Trustees or the Reorganized Company, as the case may be, whatever interest such trustees have as trustees, paying agents, escrow agents or fiduciaries, and no personal covenant or liability shall be implied against or be assumed or undertaken by any such trustee by virtue of compliance with this Order. Each such trustee is hereby further authorized and directed, from time to time after the Consummation Date, to execute all such other and further instruments of discharge, release, satisfaction, transfer, conveyance or assignment and to make all further transfers and deliveries as may be necessary or desirable for more fully and certainly vesting in the Debtor's Trustees or the Reorganized Company, as the case may be, all right, title and interest of such trustees and for more fully and certainly accomplishing the release, discharge, cancellation and satisfaction of the instruments under which such trustees were respectively appointed and acting.

5.05. Cancellation and Destruction. Prior to the Consummation Date, the Debtor's Trustees shall take such steps as may be necessary and desirable to discontinue trading as of the Consummation Date in all the securities of the Debtor. Effective as of the Consummation Date, the presently author-

ized common stock and preferred stock of the Debtor and the bonds heretofore issued by the Debtor shall be cancelled, and the Debtor's Trustees and the Reorganized Company are hereby authorized, from time to time, to cause the cancellation or destruction of all bonds, coupons, debentures, notes, certificates, evidences of indebtedness, shares of stock and other securities or evidences of interest therein (i) that evidence claims surrendered by any of the holders of such instruments in exchange for cash payable or Common Stock or Redeemable Preference Shares issuable under the Amended Plan or (ii) issued under any of the mortgages, indentures, deeds or agreements referred to in Section 5.04 of this Order.

5.06. Discharge of Debtor's Trustees. As of the Consumption Date, the Debtor's Trustees shall be discharged and relieved of any further duties and responsibilities in respect of the administration of the property or the conduct of the business and affairs transferred to the Reorganized Company on the Consumption Date, and the Debtor's Trustees shall no longer have any power and authority or duties and responsibilities to take any action on behalf of or in respect to the Reorganized Company; PROVIDED, however, that the Debtor's Trustees are authorized and directed to prepare additional reports as provided in Section 8.03 of this Order.

All of the monthly general balance sheets, quarterly and annual condensed statements of income, and monthly statements

of cash receipts and disbursements filed with the court prior to the date of this Order by the Debtor's Trustees, and all of the Statements of Investments held by the Debtor's Trustees (Restricted Funds) so filed by them pursuant to Order No. 347-D and Order No. 412 in these proceedings are hereby accepted and approved.

Any person who fails to file with the court on or before July 31, 1983 notice of any claim or action of any nature against any current or former Trustee of the Debtor, in his personal capacity, based on any alleged act or failure to act at any time on or prior to the Consummation Date in respect of the administration of the Debtor shall be forever barred from asserting any such claim or action against any such Trustee, the Debtor or the Reorganized Company. Any such notice shall be in writing and shall state with particularity the nature of the claim or action and the relief sought. The current and former Debtor's Trustees, the Debtor and the Reorganized Company shall be forever discharged and released from any liability with respect to any such claims or actions notices of which are not so filed on or before July 31, 1983. The Debtor's Trustees are directed to give notice of the provisions of this final paragraph of Section 5.06 by publication once a week for two successive weeks, the last publication to be not less than seven (7) days prior to July 31, 1983, in The New York Times, The Wall Street Journal

and a newspaper of general circulation in each of the following cities: Boston, Massachusetts; Concord, New Hampshire; Portland, Maine; Albany, New York; Burlington, Vermont; and Hartford, Connecticut. The Debtor's Trustees shall further cause a copy of such notice to be mailed to all parties customarily receiving notices in these proceedings and to all persons, if any, known to have such claims.

5.07. Indemnification of Debtor's Trustees and their Agents. At all times after the Consummation Date the Reorganized Company is authorized and directed to indemnify and hold harmless the Debtor's Trustees and their predecessors as Trustees of the Property of the Debtor, their officers and employees, and any persons who have served as directors or officers of other companies at the Debtor's Trustees' request, in accordance with and subject to the provisions of a resolution in the form approved in Section 1.01 of this Order. The Board of Directors of the Reorganized Company is authorized and directed to adopt the said resolution on the Consummation Date, and said resolution as so adopted shall not be revoked, modified or amended except in accordance with an Order of this court entered pursuant to its reserved jurisdiction.

Notwithstanding anything contained in the first paragraph of this Section 5.07, such indemnification shall not extend to the payment of expenses, judgments, fines or amounts paid in settlement by any Debtor's Trustee or former Debtor's

Trustee in connection with any action, suit or proceeding against such Debtor's Trustee brought by or in the right of any creditor of the Debtor alleging actionable personal misconduct by such Debtor's Trustee in the treatment of a claim against the Debtor which existed on or prior to March 12, 1970, but such indemnification shall, such in any instance, be payable out of the Segregated Account, by Order of this court, if the conduct of the Debtor's Trustee or former Debtor's Trustee in question is found by the court to have met the standard required by the terms of such resolution for indemnification by the Reorganized Company.

5.08. Prosecution and Defense of Legal Proceedings. The Reorganized Company shall be substituted at its own cost and expense as a party in lieu of the Debtor's Trustees in any and all litigation to which the Debtor's Trustees may be parties on the Consummation Date and may continue such litigation in the name of the Reorganized Company.

Notwithstanding anything contained in the preceding paragraph, and without in any way limiting the authority of the reorganized Company thereby granted, the Debtor's Trustees are hereby authorized and empowered:

- (a) to participate (i) in the defense of the Amended Plan against appeals from the Commission's and the court's approval or confirmation thereof and (ii) in the pending petitions for review with respect to the Commission's Order approving control

of the Reorganized Company by Guilford;

(b) to institute and prosecute all such suits, actions, claims in set-off, counterclaims or other proceedings as they may deem appropriate to collect or retain, for the benefit of those parties entitled to payment out of the Segregated Account, all monies, credits and other assets to which the Trustees of the Segregated Account may be entitled.

5.09. Compliance with FRA Purchase Agreement. As of the Consummation Date, the Reorganized Company and the United States, by the Secretary of Transportation (the "Secretary") or the Secretary's duly authorized agent, shall execute and deliver a Preference Share Agreement in the form of Exhibit F annexed to the Purchase Agreement dated September 29, 1978 between the Debtor's Trustees and the United States. The Reorganized Company shall thereupon issue Redeemable Preference Shares to the United States, as provided in Section 3.02 of this Order, and the Secretary or the Secretary's duly authorized agent shall in consideration therefor cancel and deliver to the Reorganized Company the Debtor's Trustees' Certificates referred to in Section 3.02 of this Order and shall execute and deliver to the Reorganized Company all such discharges, releases and termination statements as may be necessary to cancel and terminate, of record or otherwise, any and all security interests held by the United States as security for the Debtor's Trustees' Certificates. From and after the Consummation Date the Reorganized Company shall assume and be solely responsible for all of the Debtor's

Trustees' obligations under the Purchase Agreement, if any, and the United States shall look solely to the Reorganized Company for such performance.

5.10. Conveyance from the Debtor's Trustees to the Reorganized Company. In furtherance and confirmation of the transfer of all of the properties to be transferred to the Reorganized Company by virtue of Section 5.01 of this Order which are presently of record in the name of the Debtor's Trustees, the Debtor's Trustees are authorized and directed to execute and deliver to the Reorganized Company deeds transferring all right, title and interest of the Debtor's Trustees in such property, effective as of the Consummation Date. Such deeds shall be substantially in the form approved by Section 1.01 of this Order. The Debtor's Trustees or their duly authorized designees are further authorized and directed after the Consummation Date, if necessary, to execute and deliver to the Reorganized Company any and all such further deeds, conveyances, bills of sale, assignments, transfers and other instruments as may be necessary or proper for more fully and certainly conveying, assigning, transferring and delivering to the Reorganized Company all right, title and interest of the Debtor's Trustees in and to the properties formerly of the Debtor or the Debtor's Trustees.

VI. SATISFACTION OF CLAIMS AND ASSUMPTION OF OBLIGATIONS

6.01. Notice of Availability of Cash. As promptly as pos-

sible but not later than thirty (30) days after the Consummation Date, the Debtor's Trustees shall publish a Notice of Exchange and Availability of Cash ("Notice"), in such form as they shall deem appropriate, and shall cause a copy of the Notice to be mailed to each registered holder of First Mortgage Bonds or Income Bonds of the Debtor and to each other bond holder or other claimant (i) whose identity and address is known to the Debtor's Trustees, (ii) who is entitled to participate under the Amended Plan and (iii) who is a holder of such Bonds or whose claim has been approved, acknowledged or allowed as of the Consummation Date. The Notice shall be published once a week for two successive weeks in The New York Times, The Wall Street Journal and a newspaper of general circulation in each of the following cities: Boston, Massachusetts; Concord, New Hampshire; Portland, Maine; Albany, New York; Burlington, Vermont; and Hartford, Connecticut. The Debtor's Trustees shall further cause a copy of the Notice to be mailed to each claimant who is entitled to participate under the Amended Plan, whose address is known and whose claim is approved, acknowledged or allowed subsequent to the Consummation Date as promptly as possible after the date upon which the claim is so approved, acknowledged or allowed.

6.02. Issuance and Delivery of New Securities and Payment of Cash.

(a) The Reorganized Company and the agents referred

to in Section 1.03 of this Order shall, as promptly as practicable, in accordance with the instructions of the Debtor's Trustees and the Reorganized Company, and execute certificates for the Common Stock/ Redeemable Preference Shares of the Reorganized Company substantially in the respective forms approved in Section 1.01 of this Order and authenticate, issue and deliver the same in accordance with the provisions of this Order and the Amended Plan.

(b) On the Consummation Date, upon payment by the Shawmut Bank of Boston, N.A., as Escrow Agent, and Guilford of an aggregate of \$ 24,250,000 to the Debtor's Trustees, the Reorganized Company shall issue and deliver to Guilford a certificate or certificates, in the form approved in Section 1.01(d) of this Order, for 2,425,000 shares of new Common Stock.

(c) On the Consummation Date, following authorization by the Board of Directors of the Reorganized Company of the issuance of Redeemable Preference Shares in Series A, upon presentation and surrender of the Debtor's Trustees' Certificate 1978-A (4R/505) issued to the United States by the Debtor's Trustees in the maximum face amount of \$ 25,600,000.00 (and under which a total of \$ 25,530,000.00 has actually been advanced pursuant to the Purchase Agreement of September 29, 1978

between the Debtor's Trustees and the United States) and in full satisfaction and cancellation thereof, the Reorganized Company shall issue and deliver to the United States a certificate or certificates representing 2,553 Redeemable Preference Shares, Series A, in the form approved by Section 1.01(b) of this Order.

(d) On the Consummation Date, following authorization by the Board of Directors of the Reorganized Company of the issuance of Redeemable Preference Shares in Series B, upon presentation and surrender of the Debtor's Trustees' Certificate 1978-B (4R/505) issued to the United States by the Debtor's Trustees in the maximum face amount of \$ 400,000.00 and in full satisfaction and cancellation thereof, the Reorganized Company shall issue and deliver to the United States a certificate for 40 Redeemable Preference Shares, Series B, in the form approved in Section 1.01(c) of this Order.

(e) The Debtor's Trustees shall provide to the First Mortgage Bond Claims Agent, the Income Bond Claims Agent and Exchange Agent drafts, payable from the Segregated Account, to be used to disburse such cash as they are required to disburse pursuant to the Amended Plan, and such drafts shall be honored,

if properly endorsed, upon presentation.

(f) The issuance, transfer and exchange of new Common Stock and Redeemable Preference Shares and the execution, delivery, filing and recording of documents, as authorized and provided in this Order and the documents herein approved, are all pursuant to the Amended Plan, which has been confirmed by this court in accordance with the provisions of Section 77 of the Bankruptcy Act and are for the purposes of carrying out and putting into effect such Amended Plan. No further authorization or approval by any court or administrative, regulatory or other body, including without limitation the approval of the Interstate Commerce Commission pursuant to Section 20a of the Interstate Commerce Act, 49 U.S.C. 20a, is required for such purposes or for the validation of any securities issued and actions taken pursuant to this Order.

6.03. Termination of Right to Receive Cash or CCIs

Under the Amended Plan. The rights of all holders of bonds, creditors and claimants to receive cash or CCIs, upon the surrender of bonds or execution of release forms, as provided in the Amended Plan and this Order, shall terminate five years after the Consummation Date or, as to claims asserted as of the

Consummation Date but not approved, acknowledged or allowed until after the fourth anniversary of the Consummation Date, one year after the date of such approval, acknowledgment or allowance. Holders of bonds, creditors and claimants who do not surrender their bonds or execute release forms within such period shall not be entitled to participate under the Amended Plan; PROVIDED, however, that nothing in this Section 6.03 shall affect the right of any claimant or creditor to receive a distribution of cash or CCIs if some but not all of the claims of any such claimant or creditor within each class under the Amended Plan have been approved, acknowledged or allowed as of the date upon which such right would otherwise terminate pursuant to this Section 6.03. Any such cash in the Segregated Account not distributed within such period shall become the sole and exclusive property of the Reorganized Company, free and clear of any right, title and interest in others, the escheat or abandonment of property laws of any state to the contrary notwithstanding, subject to the proviso contained in the last sentence of Section 3.9 of the Amended Plan. Not less than sixty (60) days and not more than ninety (90) days before the fifth anniversary of the Consummation Date, the Trustees

shall cause to be published a notice that the right to receive cash and CCIs as provided in the Amended Plan shall terminate, subject to the exception referred to above for claims which are approved, acknowledged or allowed after the fourth anniversary of the Consummation Date. Such notice shall be published at least once in each of the newspapers referred to in Section 6.01 of this Order.

6.04. Assumption of Claims by Reorganized Company.

The following claims and obligations shall be assumed and satisfied by the Reorganized Company:

(a) Subject to payment from the Segregated Account to the Reorganized Company of such cash as is required to be paid by Section 3.3(2), paragraph First, of the Amended Plan, the Reorganized Company is authorized and directed to pay out of any assets available to it such amounts (i) as may be called for by drafts, checks or vouchers signed or bills approved prior to the Consummation Date by the Debtor's Trustees or any person thereunto duly authorized by the Debtor's Trustees, for goods or services provided before the Consummation Date; (ii) as may be necessary for the payment of obligations which accrued prior to the Con-

summation Date for goods or services ordered, contracted for or authorized for purchase by the Debtor's Trustees or any person thereunto duly authorized by the Debtor's Trustees; and (iii) as may be necessary to satisfy other Administration Claims which are not satisfied in full prior to the Consummation Date and which relate to the conduct of the Debtor's business or the acquisition, maintenance or disposition of its properties, except costs of administration relating to the formulation, approval, confirmation and/or implementation of the Amended Plan and except all allowances to the Debtor's Trustees and their counsel Charles W. Mulcahy, Jr. and accountant M. G. Sherman.

(b) The Reorganized Company is authorized and directed to assume each executory contract of the Debtor which has been adopted by the Debtor's Trustees. All prebankruptcy executory contracts not so assumed are disaffirmed and rejected, effective as of the Consummation Date but relating back to March 12, 1970, and the Reorganized Company shall have no responsibility to carry out the terms of such contracts.

(c) As of the Consummation Date, the Reorganized Company is authorized and directed to assume and comply with all agreements of the Debtor's Trustees, including without limitation

(i) any agreements for the financing of the purchase of property such as the Loan Agreement of April 1, 1982 between the Debtor's Trustees and Guilford relating to the purchase from ConRail of certain lines in Western Massachusetts and Connecticut, the Conditional Sale Agreement dated as of September 15, 1975 among the Debtor's Trustees, Southern Iron & Equipment Company and the National Shawmut Bank of Boston (now by change of name Shawmut Bank of Boston, N.A.) relating to the purchase of certain box cars, and all equipment leases entered into by the Debtor's Trustees during the reorganization period, and (ii) any agreements for the sale of property which have been approved by the Debtor's Trustees or their designees and which, but for the occurrence of the Consummation Date, would have been consummated by the Debtor's Trustees pursuant to a final order specifically authorizing such sale or a general order authorizing sales if the consideration is less than an amount

specified in such general order.

Upon such assumption and compliance by the Reorganized Company, it shall be substituted for the Debtor's Trustees in all respects under any such agreements, and such substitution shall not give rise to any rights of or claims by the other parties to any such agreements, including, without limiting the generality of the foregoing, any right to contend that the substitution gives rise to a claim for breach of the agreement or acceleration of any amounts payable under the agreement.

VII. EXECUTION AND RECORDATION OF DOCUMENTS

7.01. Execution and Delivery of Documents. The Debtor's Trustees or either of them, or such persons as the Debtor's Trustees may by resolution designate, and the appropriate duly elected officers of the Reorganized Company are hereby authorized and directed to execute and deliver or to have executed and delivered the documents approved in Section 1.01 of this Order to which they are parties, and to execute and deliver or to have executed and delivered, in the case of the Debtor's Trustees, all such other conveyance documents, bills of sale, assignments and other instruments as may be necessary and proper, in accordance with Section 5.10 of this Order,

to convey, assign and transfer all of the right, title and interest of the Debtor and the Debtor's Trustees in and to the properties to be vested in the Reorganized Company, and, in the case of the officers of the Reorganized Company, to assume and indemnify the Debtor's Trustees in accordance with Section 5.07 of this Order. Whether executed before or after the Consummation Date, each of said instruments shall be effective as of the Consummation Date unless otherwise expressly provided therein.

7.02. Recording and Filing Documents.

(a) The Reorganized Company is authorized and directed to promptly file or record, but not later than sixty (60) days after the Consummation Date,

(i) in each of the jurisdictions in which the Reorganized Company owns real property, a copy of this Order; and

(ii) in each of the jurisdictions in which the Reorganized Company owns real property and in which any mortgage of the Debtor released and discharged pursuant to Section 5.04 of this Order was previously recorded, a copy of this Order, the discharges approved in Section 1.01 (e) and (f) of this Order, and any other discharges covering property in said jurisdiction which is received by the Company; provided, however, that this Order need not be filed and recorded more than once in any such jurisdiction.

(b) The recording officer of each jurisdiction

referred to in Section 7.02(a) of this Order shall, upon presentation of a duly executed counterpart thereof, accept for recording any of the documents referred to in Section 7.02(a) of this Order.

(c) If the recordation or taxation laws or regulations of any jurisdiction require that any of the documents referred to in Section 7.02(a) of this Order contain real property descriptions which are more specific than, or otherwise differ from, those contained in such documents, the Reorganized Company is authorized and directed to execute, deliver, file and record, as soon after the Consummation Date as is reasonably practicable, amendatory or supplemental deeds or other documents which comply with such laws or regulations.

VIII. FURTHER PROCEEDINGS

8.01 Injunction. All persons, firms, governmental entities and corporations, wherever situated, located or domiciled, are hereby permanently restrained and enjoined from instituting, prosecuting or pursuing, or attempting to institute, prosecute or pursue, any suits or proceedings, at law or in equity or otherwise, against the Debtor's Trustees or the Reorganized Com-

pany or its or their successors or assigns or against the Segregated Account or any of the assets or property of the Reorganized Company or its successors or assigns, directly or indirectly, on account of or based upon any right, claim or interest of any kind or nature whatsoever which any such person, firm, governmental entity or corporation may have in, to or against the Debtor, the Debtor's Trustees or any of their assets or properties, and from interfering with, attaching, garnishing, levying upon, enforcing liens against or upon, or in any manner whatsoever disturbing, any portion of the property, real, personal or mixed, of any kind or character, on or at any time after the Consummation Date in the possession of the Debtor's Trustees or the Reorganized Company and from interfering with or taking steps to interfere with the Reorganized Company, its officers and agents, or the operation of the properties or the conduct of the business of the Reorganized Company by reason of or on account of any obligation or obligations incurred by the Debtor or the Debtor's Trustees in these proceedings, except the obligations imposed on the Debtor's Trustees or the Reorganized Company by the Amended Plan and this Order or reserved for resolution or adjudication by this Order. All persons, firms, governmental entities and corporations, wherever situated, located or domiciled, are here-

by restrained and enjoined from instituting, prosecuting or pursuing or attempting to institute, prosecute or pursue any action, suit or proceedings, at law, in equity or otherwise, against the Debtor's Trustees or the Reorganized Company or any of its or their assets or property, directly or indirectly, except such actions, suits or proceedings as may be for the purpose of carrying out this Order or consummating the Amended Plan. Any other provision of this Order to the contrary notwithstanding, the consummation of the Amended Plan and any action taken pursuant to this Order shall not prejudice the rights of appellants to prosecute pending appeals from the Approval Order or appeals which may be taken from the Confirmation Order or this Order.

8.02. Reservation of Jurisdiction. From and after the Consummation Date, the court hereby reserves jurisdiction, which shall be exclusive to the extent that under applicable law such jurisdiction is presently exclusive:

(a) To consider and approve the report of the Debtor's Trustees as provided in Section 8.03 of this Order and to discharge the Debtor's Trustees;

(b) To the extent not previously determined by this court, to fix the amounts of allowances of compensation for services heretofore or hereafter rendered and reimbursement of expenses heretofore or hereafter incurred under Sections 77(c)(2) and 77(c)(12) of the Bankruptcy Act in connection with these proceedings or the Amended Plan or the execution of this Order;

- (c) To consider and act in the matter of any proofs of claims against the Debtor or claims for administration expenses against the Debtor or the Debtor's Trustees, including without limitation action to deny any such claims, to adjudicate the amount or validity thereof, to classify such claims, to provide for the satisfaction of such claims and to approve settlements of any such claims;
- (d) To consider and act in respect of any claim of the Debtor or the Debtor's Trustees, in respect of any petition or matter pending before the court as of the Consummation Date or in respect of any agreement or matter to which the Debtor's Trustees are or the Debtor is a party, as to which the court presently has asserted jurisdiction and which has not been adjudicated, discharged, resolved or terminated as of the Consummation Date;
- (e) To consider and act on any application for instructions with respect to the distribution of funds or the issuance of new Common Stock, Redeemable Preference Shares or CCIs in connection with this Order and the Amended Plan, to construe this Order and the Amended Plan as to matters which may require interpretation or construction and which are not dealt with in this Order and to consider and act upon any matter as to which jurisdiction is reserved by this Order;
- (f) To consider and take appropriate action with respect to the injunctive provisions of this Order;
- (g) To take such further action and to enter such further orders as may be necessary to cure any defect, supply any omission, reconcile any inconsistency and put into effect and carry out this Order and the Amended Plan and all other orders relative thereto entered by this court and to prevent interferences therewith; provided, however, that nothing in this Section 8.02 shall be construed as a reservation of jurisdiction to change the terms of the Amended Plan as confirmed or any of the rights vested thereunder;
- (h) To consider and act in the matter of (i) any claim or action against any current or former

Debtor's Trustee or Trustees of the Property of the Debtor, in his or their personal capacity, including claims or actions filed pursuant to Section 5.06 of this Order, or actions against the officers or employees of any of the Debtor's Trustees or persons who have served as officers or directors at their request, arising out of any act or omission of any such person in respect of the administration of the Debtor's operations or estate during these proceedings, and (ii) any application of such Debtor's Trustees, officers or employees or persons who served as officers or directors at such Debtor's Trustees' request for indemnification from liabilities and expenses in respect of such actions, or any other actions in which such individuals are personally involved, pursuant to Section 5.07 of this Order or the Indemnification Resolution approved in Section 1.01 of this Order and adopted by the Reorganized Company pursuant to Section 5.07 of this Order; and

(i) To enter a Final Decree discharging the Debtor's Trustees from all of their remaining responsibilities under the Amended Plan and hereunder, and terminating these proceedings.

8.03. Additional Reports. Within ninety (90) days after the Consummation Date, the Debtor's Trustees shall file with the court a report that shall include (i) a General Balance Sheet as of the close of the Consummation Date (but before giving effect to the consummation) prepared in accordance with Interstate Commerce Commission accounting rules and certified as correct by Peter W. Carr, Vice President - Finance, or other Chief Accounting Officer for the Debtor's Trustees, and (ii) a Condensed Statement of Income for the period from the end of the month covered by the last such statement filed with the court through the end of the Consummation Date,

similarly prepared and certified, in the same form as the monthly Condensed Statements of Income heretofore filed with the court.

Within one hundred and eighty (180) days after the date of the Order confirming the Amended Plan, the Debtor's Trustees shall, in compliance with Clause (9) of Bankruptcy Rule No. 8-208, file with the court a report stating the progress made in the consummation of the Amended Plan and summarizing the claims or interests which have not been surrendered or released, in accordance with the Amended Plan and this Order.

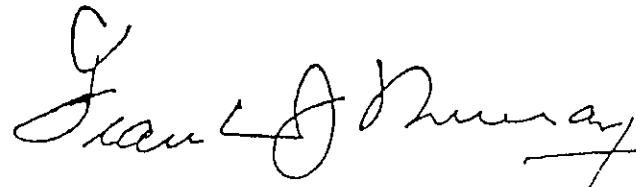
8.04. Termination of Proceedings. Except as the court has specifically reserved jurisdiction by this Order, except as the court hereby reserves jurisdiction to file a supplementary order concerning consummation of the Amended Plan, all jurisdiction of this court in or by reason of these proceedings shall be terminated and these proceedings closed effective as of the entry of the Final Decree.

8.05. Appeals.

(a) From and after the Consummation Date, the court hereby reserves jurisdiction to direct the distribution of whatever amounts of cash or securities may be necessary to carry out the resulting final order in the event the claims of the

City of Cambridge, which has appealed from the order approving the Amended Plan, are sustained in whole or in part on appeal or remand after appeal and the Debtor's Trustees shall make any distribution so ordered. Pending further order of the court, the Debtor's Trustees shall maintain at all times an amount of cash in the Segregated Account in excess of the amount of the post-petition interest on all real estate taxes secured by statutory liens, asserted in said appeal.

(b) This Consummation Order and any consummation of the Amended Plan are without prejudice to or impairment of the rights or standing of Cambridge to continue to prosecute its claims on appeal, it being the intention of the provisions of this Section 8.05(b) that Cambridge shall have the same substantive rights to said appeal following consummation as it has prior to consummation.



Dated June 17, 1983

Senior District Judge

FOOTNOTE

1. In the order of notice of the time and place of the hearing of the petition [document no. 4687] for entry of a consummation order, the court required that all objections to the Debtor's Trustees' proposed consummation order be filed with the court on or before May 31, 1983. The following objections and claims were filed pursuant to the order of notice:
 - (a) Objections of the Second Mortgage Trustees, and their petition to authorize holdback from payments to bondholders.
 - (b) Objection of Sherburne, Powers and Needham to Section 8.03 of the Debtor's Trustees' proposed consummation order [Section 8.02 of this Order of the court], and their request that the court reserve jurisdiction to consider allowance of counsel fees concerning the "six months claims" litigation; which objection and request George W. McLaughlin adopted and in which he joined.
 - (c) Objection of Vermont and Massachusetts Railroad Company, and its claims against the Debtor's Trustees for (i) cost of rehabilitating the Turners Falls Branch, and (ii) reimbursement of legal expenses.
 - (d) Request of Foley, Hoag and Eliot that the court reserve jurisdiction to consider allowance of counsel fees concerning the "six months claims" litigation.
 - (e) Requests of Guilford Transportation Industries, Inc. that the Debtor's Trustees' proposed consummation order be revised or amended in respect of Section 5.01 of, and the form of the indemnification resolution referred to in Section 1.01 of, such proposed consummation order.
 - (f) Motion of United Transportation Union for stay of order for consummation of Amended Plan pending determination of employees' wage and benefit claims under Award of Arbitration Board 387, the Railway Labor Act and otherwise.

At the hearing, requests were made of the court for leave to file additional documents on or before June 6, 1983, and leave was granted to file specified documents by the following persons:

- (a) To Foley, Hoag and Eliot, an amendment to Section 8.03(b) of the Debtor's Trustees' proposed order of consummation [Section 8.02(b) of this Order of the court].

(b) To James F. Freeley, Jr., counsel for United Transportation Union, an affidavit of Roger Lenfest, chairman of the Union.

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
BOSTON AND MAINE CORPORATION

Pursuant to Section 303 of the General Corporation Law
of the State of Delaware

Boston and Maine Corporation, a corporation duly organized
and existing under the General Corporation Law of the State of
Delaware (the "Corporation") and originally incorporated in the
State of Delaware on March 27, 1963, does hereby certify as
follows:

FIRST: That the Certificate of Incorporation of the
Corporation was filed in the office of the Secretary of State
of Delaware on the 27th day of March, 1963.

SECOND: That the Certificate of Incorporation of the
Corporation is hereby amended by striking out Article Fourth
and substituting therefor the following:

"Fourth. The Corporation shall have authority to issue
a total of 3,000,000 shares of Common Stock of the par
value of \$1 per share and a total of 2,600 Redeemable
Preference Shares of the par value of \$10,000 per share.

The voting powers, designations, preferences, rights,
qualifications and limitations of such Common Stock and of
the Redeemable Preference Shares, shall be as follows:

In case of liquidation or dissolution or winding-up
of the Corporation, whether voluntary or involuntary, the
holders of the Common Stock shall be entitled to receive,
out of the assets of the Corporation available for
distribution to its stockholders (whether capital or
surplus), Ten Dollars (\$10.00) per share. In addition,
after payment in full to the holders of the Redeemable
Preference Shares as hereinafter set forth, the holders of
the Common Stock shall be entitled to share ratably in all
of the remaining assets of the Corporation available for
distribution to its shareholders.

The Board of Directors shall have authority to issue Redeemable Preference Shares from time to time in one or more series of any number of shares, provided that the aggregate number of shares issued and not cancelled shall not exceed a total of 2,600 shares. The designations, preferences, rights, qualifications and limitations of the Redeemable Preference Shares shall be those set forth in Exhibit B to the Preference Share Agreement, the form of which is annexed as Exhibit F to the Purchase Agreement dated September 29, 1978 entered into between the United States of America represented by the Secretary of Transportation acting through the Administrator of the Federal Railroad Administration and Robert W. Meserve and Benjamin H. Lacy, Trustees of the Property of the Boston and Maine Corporation. A copy of said Exhibit B is filed with the Corporation's Articles of Incorporation, as amended, and is incorporated herein by reference as fully as if set forth in full in this Article Fourth.

The Redeemable Preference Shares shall have the limited voting power to elect two directors under certain circumstances of default as described in the aforesaid Exhibit B. All other voting power shall be vested in the holders of Common Stock and such holders shall be entitled to one (1) vote per share.

No right to subscribe for or take any stock or shares, or to participate in any increase of capital or the issue of any additional stock, shall appertain to the Common Stock or the Redeemable Preference Shares. No shares of Common Stock having the preferences relative to the Redeemable Preference Shares set forth above and in said Exhibit B shall at any time be issued, other than those issued pursuant to the Corporation's Plan of Reorganization."

IN WITNESS WHEREOF, this Certificate has been executed by Robert W. Meserve and Benjamin H. Lacy, as Trustees of the Property of Boston and Maine Corporation in Proceedings for the Reorganization of a Railroad, pending in the United States District Court for the District of Massachusetts (Case No.

70-250-M) pursuant to the Consummation Order of the said Court entered May , 1983, and the statutory authority granted by Section 77(b) of the Bankruptcy Act of July 1, 1898, 30 Stat. 544, as amended (former U.S.C. Title 11) made applicable to Boston and Maine Corporation and said Proceedings by §403 of the Bankruptcy Code, 92 Stat. 2549 (1978), the present U.S.C. Title 11.

Robert W. Meserve

Benjamin H. Lacy

Incorporated Under The
Laws
of the State
of
Delaware

BOSTON AND MAINE CORPORATION

With respect to the issuance or sale of these securities by railroads, the securities represented by this certificate have been exempted from the provisions of Section 20A of the Interstate Commerce Act (49 U.S.C. 20a), the registration and prospectus delivery requirements of the Securities Act of 1933, and the provisions of the securities laws of every State, under Section 510 of the Railroad Revitalization and Regulatory Reform Act of 1976 (45 U.S.C. §30). These securities may not be sold or transferred except in accordance with the provisions of the Agreement as defined below.

This certifies that

(\$10,000 INITIAL PAR VALUE subject to reduction pursuant to the provisions of the Company's Charter) of BOSTON AND MAINE CORPORATION transferable, in whole or in part, by the holder hereof in person or by duly authorized attorney on the books of said Company, upon surrender of this certificate properly endorsed. THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH STOCKHOLDER WHO SO REQUESTS THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OR SERIES THEREOF AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND/OR RIGHTS. Each taker and subsequent holder of these shares (or part) by taking or holding the same, consents and agrees that these shares, when endorsed in blank, shall be deemed negotiable, and that the holder, when these shares (or part) have been so endorsed, may be treated by the Company and all other persons dealing with these shares (or part) as the absolute owner hereof for any purpose and as the person entitled to exercise the rights represented hereby or entitled to transfer hereof on the books of the Company, any notice to the contrary notwithstanding; but until such transfer on such books, the Company may treat the registered holder as the owner for all purposes. This certificate and the shares represented hereby are issued, received and held, subject to those provisions of the Certificate of Incorporation of the Company, as amended (the "Charter") set forth in the Certificate of Amendment of the Charter dated May 1, 1983, and Exhibit B to the Preference Share Agreement dated May 1, 1983, between the United States of America and the Company (the "Agreement"), a copy of which Exhibit is filed with the Charter, as so amended, and incorporated therein by reference, to which provisions the holder by acceptance hereof, assents. These shares shall be subject to and entitled to the benefit of the Agreement.

It is specifically noted that the Company and the holder of these shares to be equity securities subject to the provisions of the Charter and the Agreement. In the event that the shares become a debt obligation as provided in the Charter and the Agreement, the Company promises to pay to the holder of the holder hereof interest and principal payments in accordance with the Agreement and the Charter.

IN WITNESS WHEREOF the said Company has caused this certificate to be signed and validated by its duly authorized officers.

Dated:

SHARES
Series A

BOSTON AND MAINE CORPORATION

The Company has outstanding the following classes of shares having preferences or special rights in the payment of dividends, in voting, upon liquidation or otherwise:

(1) Redeemable Preference Shares, Series A and B(2) Common Stock, par value \$1 per share

Upon request, the Company will furnish any stockholder, without charge, information as to the number of such shares authorized and outstanding and a copy of the portions of the Charter containing the designations, preferences, limitations and relative rights of all shares and any series thereof.

The Company shall exchange this certificate for new certificates of different denominations but of like tenor for shares having a minimum initial par value of ten thousand dollars (\$10,000) and representing in the aggregate the total par value of the Preference Shares, Series A, being surrendered, upon surrender of this certificate by the holder thereof at the executive offices of the Company.

The Company shall issue new shares upon transfer or exchange without charge to any holder for any issuance tax in respect thereof; provided, however, that the Company shall not be required to pay any tax which may be payable with respect to the transfer or exchange involved in the delivery of such new shares.

The Company shall at no time close its transfer books against the transfer of any of the Preference Shares, Series A, where such closure would interfere with a timely transfer for record date purposes.

With respect to these shares, the Company will deem notice of a change of address for record date purposes received at of the postmark of such notice if sent by the holder by registered or certified mail, return receipt requested and postage prepaid to the Company at its executive offices or at such other address as may be designated in writing by the Company.

Subject to the provisions of the Company's Charter, dividends and redemption installments on these shares shall be payable annually on the anniversary date of the date of issuance hereof (which appears on the face of this certificate) commencing in the year 19 10 in accordance with the following payment schedule, unless modified in accordance with the Agreement.

| <u>Anniversary Date of the Date of Issuance</u> | <u>Redemption Installments</u> | <u>Redemption Date of the Date of Issuance</u> | <u>Anniversary Date of the Date of Issuance</u> | <u>Redemption</u> |
|---|--------------------------------|--|---|-------------------------------|
| <u>Per Share</u> | <u>Per Share</u> | <u>Per Share</u> | <u>Per Share</u> | <u>Installments Per Share</u> |
| 11 | \$621.66 | \$229.34 | 21 | \$353.76 |
| 12 | 401.82 | 342.18 | 22 | 232.84 |
| 13 | 191.39 | 156.61 | 23 | 211.03 |
| 14 | 274.35 | 211.65 | 24 | 184.27 |
| 15 | 262.68 | 201.32 | 25 | 161.10 |
| 16 | 246.35 | 203.63 | 26 | 145.38 |
| 17 | 229.21 | 210.67 | 27 | 139.51 |
| 18 | 311.59 | 436.44 | 28 | 610.67 |
| 19 | 291.10 | 456.90 | 29 | 59.59 |
| 20 | 271.84 | 476.16 | 30 | 718.84 |

Incorporated Under The
Laws
of the State
of
Delaware

BOSTON AND MAINE CORPORATION

With respect to the issuance or sale of these securities by railroads, the securities represented by this certificate have been exempted from the provisions of Section 20A of the Interstate Commerce Act (49 U.S.C. 20a), the registration and prospectus delivery requirements of the Securities Act of 1933, and the provisions of the securities laws of every State, under Section 510 of the Railroad Revitalization and Regulatory Reform Act of 1976 (45 U.S.C. 830). These securities may not be sold or transferred except in accordance with the provisions of the Agreement as defined below.

This certifies that

(\$10,000 INITIAL PAR VALUE subject to reduction pursuant to the provisions of the Company's Charter of authorized attorney on the books of said Company WILL FURNISH WITHOUT CHARGE TO EACH STOCKHOLDER WHO SO REQUESTS THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OR SERIES THEREOF AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND/OR RIGHTS.

Each taker and subsequent holder of these shares (or part) by taking or holding the same, consents and agrees that these shares, when endorsed in blank, shall be deemed negotiable, and that the holder, when with these shares (or part) as the absolute owner hereof for any purpose and as the person entitled to exercise the rights represented hereby or entitled to transfer hereof on the books of the Company, any notice to the contrary notwithstanding; but until such transfer on such books, the Company may treat the issued, received and held, subject to those provisions of the Certificate of Incorporation of the Company, as amended (the "Charter") set forth in the Certificate of Amendment of the Charter dated May , 1983, and the Company Share Agreement dated May , 1983, between the United States of America and the Company (the "Agreement"), a copy of which Exhibit is filed with the Charter, as so amended, and shares shall be subject to and entitled to the benefit of the Agreement.

It is specifically noted that the Company and the holder of these shares to be equity securities subject to the provisions of the Charter and the Agreement. In the event that the shares become a debt obligation as provided in the Charter and the Agreement, the Company promises to pay to the order of the holder hereof interest and principal payments in accordance with the Agreement and the Charter.

IN WITNESS WHEREOF the said Company has caused this certificate to be signed and validated by its duly authorized officers.

Dated:

SHARES
Series B

BOSTON AND MAINE CORPORATION

The Company has outstanding the following classes of shares having preferences or special rights in the payment of dividends, in whole or upon liquidation or otherwise:

- (1) Redeemable Preference Shares, Series A and B and
- (2) Common Stock, par value \$1 per share

Upon request, the Company will furnish any stockholder, without charge, information as to the number of such shares authorized and outstanding and a copy of the portions of the Charter containing the designations, preferences, limitations and relative rights of all shares and any series thereof.

The Company shall exchange this certificate for new certificates of different denominations but of like tenor for shares having a minimum initial par value of ten thousand dollars (\$10,000) and representing the total par value of the Preference Shares, Series B.

Upon surrender, the Company will furnish the holder thereof the certificate of the Company.

The Company shall issue new shares upon transfer or exchange without charge to any holder for any transfer tax in respect thereof; provided, however, that the Company shall not be required to pay any tax which may be payable with respect to the transfer or exchange involved in the delivery of such new shares.

The Company shall at no time close its transfer books against the transfer of any of the Preference Shares, Series B, where such closing would interfere with a timely transfer for record date purposes.

With respect to these shares, the Company will deem notice of a change of address for record date purposes received as of the postmark of such notice if sent by the holder by registered or certified mail, return receipt requested and postage prepaid to the Company at its executive offices or at such other address as may be designated in writing by the Company.

Subject to the provisions of the Company's Charter, dividends and redemption installments on these shares shall be payable annually on the anniversary date of the date of issuance hereof (which appears on the face of this certificate) commencing in the year 19____ in accordance with the following payment schedule, unless modified in accordance with the Agreement.

| <u>Anniversary Date
of the Date of
Issuance</u> | <u>Dividends
per Share</u> | <u>Redemption
Installments
per Share</u> | <u>Anniversary Date
of the Date of
Issuance</u> | <u>Dividends
per Share</u> | <u>Redemption
Installments
per Share</u> |
|---|--------------------------------|--|---|--------------------------------|--|
| 11 | \$2,518.72 | \$ 26.50 | 21 | \$2,777.77 | \$ 26.45 |
| 12 | 2,511.54 | 35.68 | 22 | 2,109.91 | 357.31 |
| 13 | 2,502.55 | 44.67 | 23 | 2,124.95 | 422.27 |
| 14 | 2,491.20 | 55.92 | 24 | 2,016.59 | 576.63 |
| 15 | 2,477.27 | 70.00 | 25 | 1,885.45 | 661.77 |
| 16 | 2,459.59 | 87.63 | 26 | 1,718.76 | 678.46 |
| 17 | 2,437.51 | 109.71 | 27 | 1,510.10 | 1,017.12 |
| 18 | 2,409.88 | 137.36 | 28 | 1,246.88 | 1,296.34 |
| 19 | 2,375.29 | 171.91 | 29 | 921.06 | 1,675.36 |
| 20 | 2,331.99 | 215.13 | 30 | \$17.54 | 2,014.68 |

BOSTON AND MAINE CORPORATION
Incorporated under the laws of the State of Delaware

Common Stock, par value \$1 per share

THIS CERTIFIES THAT

BOSTON AND MAINE CORPORATION
transfers all or any of the stock of the Corporation, by the holder
hereof, to John C. Morrison, by whom it is held
in trust for John C. Morrison.

The undersigned, the President of the Corporation, has executed this certificate in trust for the undersigned, and shall be bound by the terms of the Corporation.
This _____ day of _____, 19____

President

Treasurer

THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH STOCKHOLDER WHO SO REQUESTS THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OR SERIES THEREOF AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND/OR RIGHTS

CHARTER

FOR

SHARES

OF THE

OF THE

REGULAR

CLASS

of Common Stock, in my name and for the sum of

of the Capital Stock represented by the within

Stock, and shall be held by me, but will not

be held

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Appendix E

DISCHARGE OF MORTGAGE

KNOW ALL MEN BY THESE PRESENTS that First National Bank of Boston (successor to Old Colony Trust Company) and Malcolm W. Hall (duly appointed and qualified successor to Craig B. Haines, said Haines having been the duly appointed and qualified successor to S. Parkman Shaw, Jr.), Trustees, holders of a certain Mortgage Indenture dated December 1, 1919 by and between the Boston & Maine Railroad and Old Colony Trust Company and S. Parkman Shaw, Jr., Trustees, which Mortgage Indenture was modified by numerous Supplemental Indentures, the most recent Supplemental Indenture being dated September 27, 1968, which Mortgage Indenture was recorded with the various Registries of Deeds, County Clerks offices, or Town Land Records as set forth in Exhibit A hereto, hereby certify that said Mortgage Indenture has been paid in full, acknowledge satisfaction of said Mortgage Indenture, release and discharge the lien of said Mortgage Indenture, and consent that the same be discharged of record.

IN WITNESS WHEREOF, the said Malcolm W. Hall has set his hand and seal and said First National Bank of Boston has caused its corporate seal to be hereto affixed and these presents to be signed in its name and behalf by

its this day of
1983.

Signed in the presence of:

FIRST NATIONAL BANK OF BOSTON

By _____
Trustee _____

Malcolm W. Hall, Trustee

-2-

THE COMMONWEALTH OF MASSACHUSETTS

, ss.

, 1983

Then personally appeared the above-named
and acknowledged the foregoing instrument to be the free act
and deed of First National Bank of Boston, before me,

Notary Public

My commission expires:

THE COMMONWEALTH OF MASSACHUSETTS

, ss.

, 1983

Then personally appeared the above-named Malcolm W. Hall
and acknowledged the foregoing instrument to be his free act and
deed, before me,

Notary Public

My commission expires:

OC-NY

Exhibit A

Record references of mortgage between Boston & Maine
Railroad and Old Colony Trust et al, Trustees:

County (Clerk)

Saratoga
Washington
Rensselaer
Schenectady

| | <u>Book</u> | <u>Page</u> |
|-------------|-------------|-------------|
| Saratoga | 222 | 124 |
| Washington | 130 | 32 |
| Rensselaer | 397 | 1 |
| Schenectady | 240 | 1 |

OC-NH

Exhibit A

Record references of mortgage between Boston & Maine
 Railroad and Old Colony Trust et al, Trustees:

County (Registry of Deeds)

| | <u>Book</u> | <u>Page</u> |
|--------------|-------------|-------------|
| Belknap | 155 | 304 |
| Carroll | 158 | 61 |
| Cheshire | 390 | 354 |
| Coos | 198 | 3 |
| Grafton | 553 | 433 |
| Hillsborough | 775 | 397 |
| Merrimack | 444 | 284 |
| Rockingham | 736 | 40 |
| Strafford | 391 | 141 |
| Sullivan | 203 | 50 |

Exhibit A

Record references of mortgage between Boston & Maine
Railroad and Old Colony Trust et al, Trustees:

County (Registry of Deeds)

York
Cumberland

| | <u>Book</u> | <u>Page</u> |
|------------|-------------|-------------|
| York | 676 | 9 |
| Cumberland | 1038 | 321 |

Exhibit A

Record references of mortgage between Boston & Maine
Railroad and Old Colony Trust et al, Trustees:

County (Registry of Deeds)

| | <u>Book</u> | <u>Page</u> |
|-------------------------|-------------|-------------|
| Berkshire (North Dist.) | | |
| Essex | 357 | 1 |
| Essex (South Dist.) | 409 | 5 |
| Franklin | 2435 | 423 |
| Hampden | 651 | 2 |
| Hampshire | 1051 | 1 |
| Middlesex (North Dist.) | 754 | 401 |
| Middlesex (South Dist.) | 618 | 201 |
| Suffolk | 4315 | 7 |
| Worcester District | 4186 | 5 |
| Worcester (North Dist.) | 2198 | 3 |
| | 356 | 426 |

OC-VT

Exhibit A

Record references of mortgage between Boston & Maine Railroad
and Old Colony Trust et al, Trustees:

Town Land Records

| | <u>Book</u> | <u>Page</u> |
|---------------|-------------|-------------|
| Barnet | | |
| Barton | 35 | 1 |
| Bradford | 37 A | 1 |
| Brattleboro | 26 | 224 |
| Burke | 56 | 476 |
| Coventry | 19 B | |
| Derby | 16 | |
| Fairlee | 36 | 649 |
| Hartford | 15 | 129 |
| Irasburg | C | 305 |
| Lunenburg | 17 | 45 |
| | 1 | 457 |
| | | 140 |
| | | of |
| Lyndon | | Corpn |
| Newbury | 32 | Deeds |
| ewport | 35 | 1 |
| Norwich | 2 | 53 |
| Pownal | 24 | 51 |
| Rockingham | 39 | 1 |
| Ryegate | 61 | 350 |
| Sheffield | 18 | 400 |
| St. Johnsbury | 20 | 462 |
| Sutton | 64 | 62 |
| Thetford | Y-1 | 1 |
| Vernon | 29 | 1 |
| Waterford | 15 | 221 |
| | 21 | 406 |
| | | 135 |

DISCHARGE OF MORTGAGE

KNOW ALL MEN BY THESE PRESENTS that State Street Bank and Trust Company (formerly known as State Street Trust Company) and Daniel Golden (duly appointed and qualified successor to Howard B. Phillips, said Phillips having been the duly appointed and qualified successor to Dana M. Dutch), Trustees, holders of a certain Mortgage Indenture dated July 1, 1940 by and between the Boston & Maine Railroad and State Street Trust Company and Dana M. Dutch, Trustees, which Mortgage Indenture was modified by numerous Supplemental Indentures, the most recent being dated September 27, 1968, which Mortgage Indenture was recorded with the various Registries of Deeds, County Clerks' offices, or Town Land Records as set forth in Exhibit A hereto, hereby certify that said Mortgage Indenture has been paid in full, acknowledge satisfaction of said Mortgage Indenture, release and discharge the lien of said Mortgage Indenture, and consent that the same be discharged of record.

IN WITNESS WHEREOF, the said Daniel Golden has set his hand and seal and said State Street Bank and Trust Company has caused its corporate seal to be hereto affixed and these presents to be signed in its name and behalf by its this day of , 1983.

Signed in the presence of: STATE STREET BANK AND TRUST COMPANY

By _____
Trustee

Daniel Golden, Trustee

-2-

THE COMMONWEALTH OF MASSACHUSETTS

, ss.

, 1983

Then personally appeared the above-named
and acknowledged the foregoing instrument to be the free act
and deed of State Street Bank and Trust Company, before me,

Notary Public

My commission expires:

THE COMMONWEALTH OF MASSACHUSETTS

, ss.

, 1983

Then personally appeared the above-named Daniel x. Golden
and acknowledged the foregoing instrument to be his free act and
deed, before me,

Notary Public

My commission expires:

Exhibit A

Record references of Mortgage Indenture between Boston & Maine Railroad and State Street Bank and Trust Company et al, Trustees:

Town Land Records

| | <u>Book</u> | <u>Page</u> |
|---------------|-------------|-------------|
| Barnet | | |
| Barton | 48 | 1 |
| Bradford | 42 | 173 |
| Brattleboro | 30B | 1 |
| Burke | 77 | 47 |
| Coventry | 21 | 303 |
| Derby | 19 | 120 |
| Fairlee | 44 | 183 |
| Hartford | 18B | 1 |
| Irasburg | C'b | |
| Lyndon | 20 | 86 |
| Newbury | 36 | 194 |
| Newport | 3B | |
| Norwich | 12 | 136 |
| Pownal | 26B | |
| Rockingham | 50 | 367 |
| Ryegate | 99 | 1 |
| St. Johnsbury | 21B | |
| Ston | 83B | 1 |
| Thetford | 27 | 99 |
| Vernon | 35B | |
| Waterford | 23 | 65 |
| | 28B | |

Exhibit A

Record references of Mortgage Indenture between Boston & Maine
ailroad and State Street Bank and Trust Company et al, Trustees:

County (Registry of Deeds)

| | <u>Book</u> | <u>Page</u> |
|--------------|-------------|-------------|
| Belknap | | |
| Carroll | 247 | 63 |
| Cheshire | 222 | 50 |
| Coos County | 489 | 252 |
| Grafton | 311 | 1 |
| Hillsborough | 692 | 373 |
| Merrimack | 1005 | 352 |
| Rockingham | 578 | 53 |
| Strafford | 975 | 45 |
| Sullivan | 498 | 51 |
| | 275 | 51 |

SS-Mass.

Exhibit A

Record references of Mortgage Indenture between Boston & Maine Railroad and State Street Bank and Trust Company et al, Trustees:

County (Registry of Deeds)

| | <u>Book</u> | <u>Page</u> |
|-----------------------------------|-------------|-------------|
| Berkshire County, North District | | |
| Essex County, North District | 436 | 40 |
| Essex County, South District | 633 | 61 |
| Franklin County | 3229 | 62 |
| Hampden County | 850 | 35 |
| Hampshire County | 1696 | 218 |
| Middlesex County, North District | 953 | 81 |
| Middlesex County, South District | 949 | 71 |
| Suffolk County | 6414 | 185 |
| Worcester County, North District | 5870 | 65 |
| Worcester County, Worcester Dist. | 565 | 76 |
| | 2785 | 421 |

SS-NY

Exhibit A

Record references of Mortgage Indenture between Boston & Maine Railroad and State Street Bank and Trust Company et al, Trustees:

County (Clerk)

| | <u>Book</u> | <u>Page</u> |
|--------------------|-------------|-------------|
| Rensselaer County | | |
| Saratoga County | 624 | 219 |
| Schenectady County | 286 | 363 |
| Washington County | 421 | 43 |
| | 168 | 271 |

Exhibit A

Record references of Mortgage Indenture between Boston & Maine Railroad and State Street Bank and Trust Company et al, Trustees:

| <u>County (Registry of Deeds)</u> | <u>Book</u> | <u>Page</u> |
|-----------------------------------|-------------|-------------|
| Cumberland County | 1614 | 178 |
| York County | 956 | 1 |

RELEASE DEED

ROBERT W. MESERVE and BENJAMIN H. LACY, Trustees of the Property of Boston and Maine Corporation in the proceedings for the reorganization of a railroad, No. 70-250-M in the United States District Court for the District of Massachusetts, for consideration paid of less than \$100.00, grant to Boston and Maine Corporation, a Delaware corporation, all of the right, title and interest of said Trustees in the real estate described in Exhibit A attached hereto and made a part hereof.

WITNESS our hands and seals this _____ day of
1983.

Robert W. Meserve, Trustee

Benjamin H. Lacy, Trustee

COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss.

, 1983

Then personally appeared the above-named Robert W. Meserve and acknowledged the foregoing instrument to be his free act and deed, before me,

Notary Public

My commission expires:

-2-

COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss.

, 1983

Then personally appeared the above-named Benjamin H. Lacy and acknowledged the foregoing instrument to be his free act and deed, before me,

Notary Public

My commission expires:

Indemnification Resolution of the Board
of Directors of Reorganized Company

WHEREAS the United States District Court for the District of Massachusetts (the "Court"), having jurisdiction of the proceedings for the reorganization of the Boston and Maine Corporation (the "reorganized Company"), pursuant to Section 77 of the Bankruptcy Act has, by its Consummation Order, instructed the Board of Directors of the reorganized Company to adopt a resolution to indemnify and hold harmless the Trustees of the property of the Boston and Maine Corporation, Debtor (the "Estate") and their predecessors as such Trustees (together, the "Trustees" and individually a "Trustee"); the officers and employees of the Trustees; and certain other persons; and

WHEREAS the Court has, by the same Order, retained jurisdiction to hear and adjudicate all claims against such persons and to determine whether such persons are entitled to indemnification under the following indemnification resolution; IT IS HEREBY:

RESOLVED that:

A. The reorganized Company shall indemnify any person who was, is or becomes a party, or is threatened to be made a party, to any completed, pending, threatened or future action, suit or proceedings, whether civil, criminal, administrative or investigative (other than an action subject to the following paragraph B of this resolution) by reason of the fact that such person was a Trustee, an officer or employee of a Trustee, or a person serving at the request of the Trustees as a director or officer of another corporation against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the Estate or of such other corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful; provided, however, that no such indemnification shall be made in connection with any action, suit or proceeding against a Trustee brought in the right of any creditor of the Debtor alleging actionable personal misconduct by such Trustee in respect of a claim against the Debtor which existed on or prior to March 12, 1970. The

termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in, or not opposed to, the best interests of the Estate or of such other corporation, and, with respect to any criminal action or proceeding, that such person had no reasonable cause to believe that his conduct was unlawful.

B. The reorganized Company shall indemnify any person who was, is or becomes a party, or is threatened to be made a party, to any completed, pending, threatened or future action or suit by or in the right of the Boston and Maine Corporation, whether as Debtor or as the reorganized Company, to procure a judgment in its favor, by reason of the fact that such person was a Trustee, an officer or employee of a Trustee, or a person serving at the request of the Trustees as a director or officer of another corporation against expenses (including attorney's fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, the best interests of the Estate or of such other corporation, except that no indemnification shall be made in respect of any such claim, issue or matter as to which such person shall have been adjudged to be liable for negligence or misconduct in the performance of such person's duties unless and only to the extent that the Court shall determine that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court shall deem proper; provided, however, that no such indemnification shall be made in connection with any action or suit against a Trustee brought in the right of any creditor of the Debtor alleging actionable personal misconduct by such Trustee in respect of a claim against the Debtor which existed on or prior to March 12, 1970.

C. To the extent that a person seeking indemnification by the reorganized Company has been successful on the merits or otherwise in defense of any action, suit or proceeding for which indemnification is authorized by paragraph A and/or B of this resolution, or in defense of any claim, issue or matter therein, he shall be indemnified by the reorganized Company against expenses (including attorney's fees) actually and reasonably incurred by him in connection therewith.

D. Indemnification under paragraphs A or B of this resolution (unless ordered by the Court) shall be made by the reorganized

Company only as authorized in the specific case upon a determination that indemnification of the person seeking indemnity is proper in the circumstances because he has met the applicable standard of conduct set forth in paragraphs A and B of this resolution, and in the case of a person seeking indemnity in connection with service as a director or officer of another corporation at the request of the Trustees, that adequate indemnification from such corporation is not available to provide such person with indemnification of the nature described in this resolution. Any determination under this paragraph D shall be made (1) by the Board of Directors of the reorganized Company by a majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding in question, or (2) if such a quorum is not obtainable, or even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, (3) by the stockholders of the reorganized Company or (4) by the Court.

E. Expenses incurred in defending a civil or criminal action, suit or proceeding shall be paid by the reorganized Company in advance of the final disposition of such action, suit or proceeding upon receipt of a written undertaking by or on behalf of the person involved to repay such amount unless it shall ultimately be determined that such person is entitled to be indemnified by the reorganized Company as authorized in this resolution. The Board of Directors may decline to provide advance payment of expenses if it (1) determines that adequate indemnification is available from the corporation which such person served as an officer or director at the request of the Trustees, or (2) determines that the person involved does not appear to have met the applicable standards of conduct set forth in this resolution, as applied to the circumstances of the particular case. Any determination adverse to the person involved shall not be effective unless approved by the Court upon application by the reorganized Company.

F. This indemnification resolution shall apply to each person covered hereby from the respective effective date of the appointment of each such person as a Trustee, employee, or officer of the Trustees or person serving as a director or officer of another corporation at the request of the Trustees, as the case may be. The indemnification provided in this resolution shall inure to the benefit of the heirs, executors and administrators of the person entitled thereto.



**FOLEY
HOAG LLP**
ATTORNEYS AT LAW

May 4, 2004

John M. Stevens
Boston Office
617-832-1159
jstevens@foleyhoag.com

Certified Mail-Return Receipt Requested

Robert Culliford, Esquire
Corporate Counsel
Boston & Maine Corporation
Iron Horse Park
High Street
North Billerica, Massachusetts 01862-1679

LSY - 5/2004

Re: Notification under Chapter 21E, Section 4A;
Boston Engine Terminal, Somerville, Massachusetts

Dear Mr. Culliford:

This office represents the Massachusetts Bay Transportation Authority (the "MBTA"), owner of the former Boston Engine Terminal in Somerville, Massachusetts (the "BET" or the "Site"). Pursuant to Section 4A of the Massachusetts Oil and Hazardous Materials Release Prevention Response Act, M.G.L.c. 21E ("Chapter 21E"), this letter notifies the Boston & Maine Corporation (the "B&M") of its liability to the MBTA for costs incurred and to be incurred in responding to the release of oil and hazardous materials at the Site. The purpose of this notification is to facilitate resolution of the respective responsibilities of the parties for contamination at the Site without litigation. I suggest you notify your insurance company of this demand.

I. The MBTA and Its Relationship to the Site.

The MBTA is a body politic and corporate, and a political subdivision of the Commonwealth of Massachusetts, established under the provisions of M.G.L. c. 161A, as amended. The MBTA provides mass transportation services, including bus, subway and light rail, throughout eastern Massachusetts.

The BET, also now known as the MBTA Commuter Rail Maintenance Facility ("CRMF"), occupies approximately 34 acres in Somerville, Boston, and Cambridge, Massachusetts. The Site has been an active railroad maintenance facility and rail yard since the late 1800s.

FHBoston/1031178.4

Robert Gulliford

May 4, 2004

Page - 2 -

The B&M owned the Site from 1929 to 1976, and during that time conducted various railroad, maintenance and other commercial activities on the property. Such activities involved the operation, storage and repair of coal-powered and, later, diesel-powered locomotives. The MBTA acquired the BET from the B&M in December 1976 as part of a larger transaction in which the MBTA purchased B&M commuter rail lines lying north and west of Boston. Although the MBTA assumed ownership of the BET at that time, the B&M continued to be the primary operator of the BET until 1986.

In the mid-1990's, the MBTA conducted significant renovations of the BET in order to update the aging facilities. Those renovations included the construction of the new CRMF facility, as well as the demolition or refurbishment of many of the historic buildings on-site. Concurrent with that work, the MBTA was also required to address significant contamination of the Site that had resulted from the historic railroad and maintenance activities conducted there.

II. Response Actions at the Site

The MBTA has been required to carry out significant and costly response actions to address the widespread contamination of the BET in accordance with Chapter 21E and the Massachusetts Contingency Plan ("MCP"), 310 CMR 40.000, *et. seq.* Those response actions consisted of both investigations of the extent of the contamination and remedial efforts designed to cleanup the contamination on-Site.

Investigations undertaken by the MBTA identified extensive contamination of the Site by petroleum hydrocarbons, i.e., oil. Some other contaminants, such as chlorinated volatile organic compounds ("VOCs"), were also detected in soil and groundwater, but the primary contaminant of concern was weathered diesel fuel. Petroleum hydrocarbons were detected in soil, in the groundwater, and as floating separate-phase hydrocarbon ("SPH") underlying the Site. Phase I and Phase II investigations of the Site indicated a large, primary plume of floating SPH in the central portion of the Site (the observed thickness of the oil in this plume ranged from 0.5 to 5 feet), as well as smaller areas of SPH in the southern and eastern portions of the Site (observed thickness ranging from .03 to 1.7 feet). The predominant petroleum product identified at the Site (by fingerprint analysis) during those investigations was diesel oil/No. 2 fuel oil.¹ In addition, because of the threat of off-site contamination identified in those previous investigations, the MBTA was also required to perform a preliminary assessment and risk characterization study for the nearby Millers River to determine what impact the on-Site contamination had on that eco-system.

Subsequent remedial activities performed by the MBTA included the removal and disposal of contaminated soils, reduction of the floating SPH and treatment of the contaminated groundwater. Specifically, the MBTA removed and disposed of

¹ Diesel fuel is virtually indistinguishable from No. 2 fuel oil by the fingerprinting analysis.

Robert Culliford

May 4, 2004

Page - 3 -

approximately 100,000 cubic yards of petroleum-contaminated soil. A groundwater and oil extraction and treatment system was constructed thereafter to mitigate groundwater contamination by petroleum-hydrocarbons and reduce the amount of floating SPH at the Site. The MBTA operated that groundwater extraction and treatment system from April 1997 to December 2001.

The removal of the petroleum-contaminated soil during the CRMF facility construction and the construction and operation of the oil extraction and treatment system together greatly reduced the distribution and thickness of the floating SPH product on the Site. However, closure studies undertaken in the Fall of 2002 indicated that areas of residual floating SPH remain. As a result, a Permanent Solution as defined in the MCP has not been achieved at the Site, and a Class C-Response Action Outcome Statement, documenting a Temporary Solution under the MCP, was filed for the Site in October of 2002. The MBTA is currently performing monitoring of the conditions at the Site to determine whether a Permanent Solution can be achieved in the future and whether future remedial efforts in addition to the on-going monitoring will be required.

To date, the MBTA has expended in excess of \$15,340,810 to investigate and subsequently to remediate the contamination at the BET. Furthermore, the MBTA is continuing to incur costs in connection with the required on-going monitoring of the Site. That work is currently estimated to cost \$47,000 for the period through the second quarter of 2005, with additional sums required thereafter. Finally, additional remedial efforts could also be required in the future to achieve a Permanent Solution under the MCP, which would entail significant additional expenditures.

III. Basis for B&M's Liability at the Site

The MBTA believes that the B&M is a liable party under, *inter alia*, subsection 5(a)(2) of Chapter 21E because it owned and/or operated the BET at the time of releases of oil or hazardous materials. As noted above, the primary contaminant of concern at the Site was diesel oil, which was used in abundance by the B&M during its ownership and operation of the BET. Indeed, there were numerous documented releases of oil during the B&M's ownership and operation of the Site.

Those releases include leaks from several large above-ground and under-ground diesel fuel storage tanks. For example, releases from a 1,000,000-gallon storage tank (installed by the B&M in approximately 1949) were estimated to have resulted in approximately 2,000 to 4,000 cubic yards of contaminated soil. Likewise, the highest concentrations of VOC's detected on-site were in the vicinity of a 25,000-gallon underground salvaged oil tank of unknown age that had been installed during the B&M's ownership of the Site. Those releases constitute only a portion of the contamination that resulted from the numerous other historic storage tanks discovered at the Site. In short, all of the evidence indicates that the contamination at the Site is directly attributable to the B&M's historic use, storage and handling of oil and hazardous substances at the Site.

Robert Culliford
May 4, 2004
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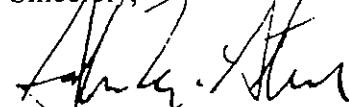
IV. B&M's Proposed Contribution, Reimbursement, or Equitable Share

The B&M is responsible for substantially all of the contamination of the BET. The B&M either owned or operated the BET continually from 1929 to 1986, during which frequent releases of oil and hazardous substances occurred in connection with the B&M's operations. Accordingly, the MBTA demands that the B&M reimburse it for 95 percent of the cleanup costs it has expended to date, as well as those it will incur in the future.

Pursuant to Section 4A of Chapter 21E, you have 45 days from receipt of this notification to respond in writing. If you dispute liability, please send all related documents, including but not limited to corporate transactional documents, you contend show that you are not liable for the contamination at the Site. If you fail to respond or fail to agree to pay your equitable share of liability for the response costs in connection with the Site, you may be subject to liability not only for all response costs but also for costs, property damages, interest, and attorneys' fees pursuant to Chapter 21E, Section 5A(d)(1)-(3).

The MBTA looks forward to your response and the expedited resolution of this matter.

Sincerely,



John M. Stevens

JMS:mlb

cc: Michael H. Mulhern, General Manager, MBTA
Gerri R. Scoll, Esquire
William A. Mitchell, Esquire
Douglas McGarrah, Esquire, Foley Hoag LLP

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS 44

Authority For Civil Cover Sheet

The JS 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

I. (a) Plaintiffs-Defendants. Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.

(b) County of Residence. For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)

(c) Attorneys. Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".

II. Jurisdiction. The basis of jurisdiction is set forth under Rule 8(a), F.R.C.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.

United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here.

United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.

Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.

Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; federal question actions take precedence over diversity cases.)

III. Residence (citizenship) of Principal Parties. This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.

IV. Nature of Suit. Place an "X" in the appropriate box. If the nature of suit cannot be determined, be sure the cause of action, in Section VI below, is sufficient to enable the deputy clerk or the statistical clerks in the Administrative Office to determine the nature of suit. If the cause fits more than one nature of suit, select the most definitive.

V. Origin. Place an "X" in one of the seven boxes.

Original Proceedings. (1) Cases which originate in the United States district courts.

Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441. When the petition for removal is granted, check this box.

Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.

Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.

Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.

Multidistrict Litigation. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407. When this box is checked, do not check (5) above.

Appeal to District Judge from Magistrate Judgment. (7) Check this box for an appeal from a magistrate judge's decision.

VI. Cause of Action. Report the civil statute directly related to the cause of action and give a brief description of the cause. Do not cite jurisdictional statutes unless diversity. Example: U.S. Civil Statute: 47 USC 553 Brief Description: Unauthorized reception of cable service

VII. Requested in Complaint. Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.

Demand. In this space enter the dollar amount (in thousands of dollars) being demanded or indicate other demand such as a preliminary injunction.

Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.

VIII. Related Cases. This section of the JS 44 is used to reference related pending cases if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

1. Title of case (name of first party on each side only) Boston and Maine Corporation v. Massachusetts Bay Transportation Authority

2. Category in which the case belongs based upon the numbered nature of suit code listed on the civil cover sheet. (See local rule 40.1(a)(1)).

I. 160, 410, 470, 535, R.23, REGARDLESS OF NATURE OF SUIT.

II. 195, 196, 368, 400, 440, 441-446, 540, 550, 555, 625, 710, 720, 730, *Also complete AO 120 or AO 121
740, 790, 791, 820*, 830*, 840*, 850, 890, 892-894, 895, 950. for patent, trademark or copyright cases

III. 110, 120, 130, 140, 151, 190, 210, 230, 240, 245, 290, 310,
315, 320, 330, 340, 345, 350, 355, 360, 362, 365, 370, 371,
380, 385, 450, 891.

IV. 220, 422, 423, 430, 460, 480, 490, 510, 530, 610, 620, 630, 640, 650, 660,
690, 810, 861-865, 870, 871, 875, 900.

V. 150, 152, 153.

3. Title and number, if any, of related cases. (See local rule 40.1(g)). If more than one prior related case has been filed in this district please indicate the title and number of the first filed case in this court.

4. Has a prior action between the same parties and based on the same claim ever been filed in this court?

YES NO

5. Does the complaint in this case question the constitutionality of an act of congress affecting the public interest? (See 28 USC §2403)

If so, is the U.S.A. or an officer, agent or employee of the U.S. a party?

YES NO

YES NO

6. Is this case required to be heard and determined by a district court of three judges pursuant to title 28 USC §2284?

YES NO

7. Do all of the parties in this action, excluding governmental agencies of the united states and the Commonwealth of Massachusetts ("governmental agencies"), residing in Massachusetts reside in the same division? - (See Local Rule 40.1(d)).

YES NO

A. If yes, in which division do all of the non-governmental parties reside?

Eastern Division Central Division Western Division

B. If no, in which division do the majority of the plaintiffs or the only parties, excluding governmental agencies, residing in Massachusetts reside?

Eastern Division Central Division Western Division

8. If filing a Notice of Removal - are there any motions pending in the state court requiring the attention of this Court? (If yes, submit a separate sheet identifying the motions)

YES NO

(PLEASE TYPE OR PRINT)

ATTORNEY'S NAME Katherine E. Potter, Esq.

ADDRESS Iron Horse Park, North Billerica, MA 01862

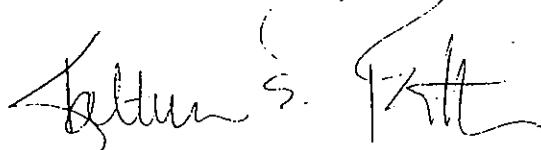
TELEPHONE NO. (978) 663-1215

CORPORATE DISCLOSURE STATEMENT

Plaintiff, Boston and Maine Corporation is a wholly-owned subsidiary of Guilford Transportation Industries, Inc. ("Guilford"). No public company owns ten percent (10%) or more of the stock of the Plaintiff or Guilford.

Dated: August 10, 2005

Respectfully submitted,



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*Attorney for Plaintiff
Boston and Maine Corporation*

**UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS**

)
BOSTON AND MAINE CORPORATION,)
Plaintiff,)
-v.-)
MASSACHUSETTS BAY TRANSPORTATION) Civil Action No. 05-11656-RCL
AUTHORITY,)
Defendant.)
)

**PLAINTIFF'S ANSWER AND DEFENSES
TO DEFENDANT'S COUNTERCLAIMS**

The plaintiff, Boston and Maine Corporation ("B&M"), answers the counterclaims of the defendant, Massachusetts Bay Transportation Authority ("MBTA"), as follows:

1. B&M denies the allegations of Paragraph 1 insofar as such allegations require a response.
2. B&M admits the allegations of Paragraph 2.
3. B&M admits the allegations of Paragraph 3.
4. B&M admits the allegations of Paragraph 4.
5. B&M admits the allegations of Paragraph 5, except lacks knowledge sufficient to form a belief as to the truth of the allegation that the site has been used as a railroad maintenance facility since the later 1800s.

6. B&M admits the allegations of Paragraph 6, except lacks knowledge sufficient to form a belief as to the truth of the allegation that B&M conducted "other commercial activities" at the former Boston Engine Terminal site.

7. B&M denies the allegations of Paragraph 7.

8. B&M denies the allegations of Paragraph 8.

9. B&M lacks knowledge sufficient to form a belief as to the truth of the allegations of Paragraph 9.

10. B&M lacks knowledge sufficient to form a belief as to the truth of the allegations of Paragraph 10.

11. B&M lacks knowledge sufficient to form a belief as to the truth of the allegations of Paragraph 11.

12. B&M lacks knowledge sufficient to form a belief as to the truth of the allegations of Paragraph 12.

13. B&M lacks knowledge sufficient to form a belief as to the truth of the allegations of Paragraph 13.

14. B&M lacks knowledge sufficient to form a belief as to the truth of the allegations of Paragraph 14.

15. B&M admits that MBTA submitted a report to the Massachusetts Department of Environmental Protection in or about October 2002, states that the report speaks for itself as to its contents, and otherwise denies the allegations of Paragraph 15.

16. B&M lacks knowledge sufficient to form a belief as to the truth of the allegations of Paragraph 16.

17. B&M admits that on or about May 4, 2004, MBTA sent to B&M the letter that is Exhibit B to the complaint in this action, states that the letter speaks for itself as to its contents, and otherwise denies the allegations of Paragraph 17.

18. B&M admits the allegations of Paragraph 18.

19. B&M admits the allegations of Paragraph 19.

20. Aside from stating that the complaint in this action speaks for itself, B&M denies the allegations of Paragraph 20.

21. Paragraph 21 states a legal conclusion to which no response is required. To the extent a response is required, B&M denies the allegations of Paragraph 21.

22. B&M denies the allegations of Paragraph 22.

23. B&M denies the allegations of Paragraph 23.

24. B&M denies the allegations of Paragraph 24.

25. B&M denies the allegations of Paragraph 25.

26. B&M repeats its responses to the allegations of Paragraphs 1 through 25.

27. Paragraph 27 states a legal conclusion to which no response is required. To the extent a response is required, B&M denies the allegations of Paragraph 27.

28. B&M admits the allegations of Paragraph 28.

29. B&M denies the allegations of Paragraph 29.

Defenses

B&M's defenses to MBTA's counterclaims are as follows:

1. The counterclaims are barred by B&M's 1983 bankruptcy discharge and the permanent injunction issued by this Court in connection therewith.

2. This Court lacks subject matter jurisdiction over the counterclaims.
3. The counterclaims fail to state claims on which relief can be granted.
4. The counterclaims are barred by the applicable statute of limitations.
5. The counterclaims are barred by laches.
6. B&M is not responsible for any remediation expenses of MBTA because MBTA

failed to incur such costs necessarily, reasonably, or consistently with the Massachusetts

Contingency Plan.

7. MBTA has failed to join one or more indispensable parties.
8. If there is or was contamination at the former Boston Engine Terminal site, it was caused not by B&M but wholly or partly by MBTA and by third parties.

Respectfully submitted,



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*Counsel for Plaintiff
Boston and Maine Corporation*

October 27, 2005